

**FEASIBILITY STUDY
FOR THE
EMERGENCY REPAIR OF THE
LAS ANIMAS CONSOLIDATED CANAL DIVERSION DAM**

**Prepared for
The Consolidated Extension Canal Company
and
The Colorado Water Conservation Board**

**W. W. Wheeler and Associates, Inc.
3700 South Inca Street
Englewood, Colorado 80110**

May 2010

FEASIBILITY STUDY APPROVAL
Pursuant to Colorado Revised Statutes 37-60-121 & 122, and
in accordance with policies adopted by the Board, the
CWCB staff has determined this Feasibility Study meets all
applicable requirements for approval.

Signed

5/18/2010
Date

EXECUTIVE SUMMARY

This feasibility report was prepared by W. W. Wheeler and Associates, Inc. (Wheeler) for the Consolidated Extension Canal Company (CECC) and the Colorado Water Conservation Board (CWCB). This report documents the feasibility of emergency repairs to the Las Animas Consolidated Canal Diversion Dam. The diversion dam is located on the Arkansas River approximately 11 miles east of La Junta and about 7 miles west of Las Animas in Bent County, Colorado.

Based on Wheeler's observations of the diversion dam during a site visit on January 5, 2010; and a review of photographs of the structure on March 24, 2009 and January 12, 2010; it is Wheeler's opinion that the diversion dam is failing and if emergency repairs are not immediately implemented, the integrity of the diversion dam cannot be guaranteed during the 2010 irrigation season. The objective of the emergency repairs is to construct a downstream buttress to minimize severe headcutting and erosion downstream of the diversion dam. A secondary objective of the project is to repair severe leakage under the canal intake gates.

In accordance with CWCB guidelines, Wheeler has developed the following repair alternatives:

Alternative	Description	Budget Opinion	Reliability of Future Operations	Construction Phases
No Action	No modifications	\$35,000	None	None
Alternative No. 1	Concrete Buttress	\$2,100,000	High	Two
Alternative No. 2	Riprap Buttress	\$1,200,000	Moderate	Two
Alternative No. 3	RCC Buttress	\$1,275,000	High	One

Wheeler recommends that the CECC consider immediate implementation of Alternative No. 3 because, if initiated during the first week of February 2010, it could be completed by mid-April of 2010 and this alternative would result in a repair that would allow safe and reliable operation of the diversion dam for many future irrigation seasons.

This feasibility report documents that Xcel Energy owns the vast majority of the shares in the CECC and has committed to pay for 80 percent of the project cost from its capital reserves. With a total budget of \$1,275,000, Xcel Energy's share of the project would be \$1,020,000. The remaining \$255,000 would be split between the CECC and the Las Animas Consolidated Canal Company (LACC). The CECC's share would be 70 percent of the remaining cost or \$178,500. The annual CECC payment associated with a CWCB loan of 2.75 percent over a 30 year repayment period is \$8,815. A financial plan prepared as part of this report documents that the non-Xcel shareholders can repay the annual loan payment based on modest future increases in annual operations shares and a special annual assessment of about \$15.39 per share during the 30-year life of the loan.

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	i
TABLE OF CONTENTS.....	ii
LIST OF TABLES	iii
LIST OF FIGURES.....	iii
LIST OF APPENDICES	iii
PROJECT TEAM	iv
ACKNOWLEDGEMENTS	v
1.0 INTRODUCTION – BACKGROUND	1
1.1. Purpose.....	1
1.2. Study Area Description.....	1
1.3. Previous Studies	2
2.0 PROJECT SPONSOR.....	3
2.1. Corporate Structure.....	3
2.2. Board of Directors	3
2.3. Current Shareholders	4
2.4. History of Organization.....	4
2.5. Financial Status.....	4
2.6. Revenue Sources.....	5
2.7. Physical Assets	6
3.0 WATER RIGHTS.....	7
3.1. Water Rights	7
3.2. Water DIVERSIONS.....	7
4.0 PROJECT DESCRIPTION AND ALTERNATIVES ANALYSIS.....	10
4.1. Analysis of Alternatives	11
4.2. ALTERNATIVE COMPARISON.....	15
4.3. Selected Alternative	16
4.4. Implementation Schedule.....	16
5.0 SOCIAL, ECONOMIC, AND PHYSICAL IMPACTS	17
6.0 INSTITUTIONAL FEASIBILITY.....	18
6.1. State Engineer Approval	18
6.2. Permitting.....	18
7.0 FINANCIAL FEASIBILITY ANALYSIS.....	20
7.1. LOAN AMOUNT AND FINANCING SOURCES.....	20
7.2. FINANCIAL PROJECTIONS	20
7.3. Collateral.....	20
7.4. CREDITWORTHINESS.....	20
8.0 CONCLUSION AND RECOMMENDATION	21

<u>LIST OF TABLES</u>	<u>PAGE(S)</u>
Table 1 List of CECC Stockholders	4
Table 2 Summary of CECC Financial Reports	5
Table 3 CECC Water Rights	7
Table 4 Las Animas Ditch Diversion Dam Diversion Records	8-9
Table 5 Alternative Comparison Summary.....	16

LIST OF FIGURES

Figure 1 Project Location Map
Figure 2 Existing Diversion Dam Plan View
Figure 3 Existing Diversion Dam Typical Cross-Section
Figure 4 Existing Downstream Face Photos
Figure 5 Alternative No. 1 Plan View
Figure 6 Alternative No. 1 Typical Cross-Sections
Figure 7 Alternative No. 2 Plan View
Figure 8 Alternative No. 2 Typical Cross-Sections
Figure 9 Alternative No. 3 Plan View
Figure 10 Alternative No. 3 Typical Cross-Section

LIST OF APPENDICES

Appendix A Articles of Incorporation and Bylaws
Appendix B List of Stockholders and Lessees
Appendix C Financial Reports for 2007, 2008, and 2009
Appendix D Alternative Budget Opinion Details
Appendix E Financial Plan

PROJECT TEAM

Directors of The Consolidated Extension Canal Company

Don Halffield, President

Bill Wilcox, Vice President

Amy Willhite, Secretary/Treasurer

Lloyde Gardner

Harrell Ridley

Attorney for The Consolidated Extension Canal Company

Brian Nazarene

Ryley Carlock & Applewhite

1999 Broadway, Suite 1800

Denver, Colorado 80202-3025

Engineer for The Consolidated Extension Canal Company

Stephen L. Jamieson, P.E.

W. W. Wheeler and Associates, Inc.

3700 South Inca Street

Englewood, Colorado 80110

Ditch Maintenance Superintendent

Jeff Baylor

ACKNOWLEDGEMENTS

Acknowledgments of those who assisted in the preparation of the report:

Don Halffield and Amy Willhite
Xcel Energy

Stephen L. Jamieson, P.E. and Delores Herman, EI
W. W. Wheeler and Associates, Inc.

Kirk Russell, P.E. and Anna Mauss, P.E.
Colorado Water Conservation Board

1.0 INTRODUCTION – BACKGROUND

1.1. PURPOSE

The Las Animas Ditch Diversion Dam is operated by the Las Animas Consolidated Canal Company (LACC) and the Consolidated Extension Canal Company (CECC).

The purpose of this project is to implement emergency repairs to minimize further downstream erosion and deterioration of the diversion dam, so that safe and reliable future operations of the structure can be ensured. If emergency repairs are not implemented immediately, severe downstream erosion could accelerate to the point that the integrity of the diversion dam is not guaranteed during the 2010 irrigation season. A secondary objective of the project is to repair the leaking canal intake gates. The gates currently leak as much as 50 cfs, which does not allow the canal companies to shut-off inflows to the diversion. This leakage results in drying up a section of the Arkansas River downstream of the diversion dam during low flow periods.

1.2. STUDY AREA DESCRIPTION

The Las Animas Ditch Diversion Dam is located on the Arkansas River approximately 11 miles east of La Junta and about 7 miles west of Las Animas, Colorado. The dam is located in Section 9, of Township 23 South, Range 53 West of the 6th P.M. in Bent County. The ditch companies have a prescriptive easement to operate the diversion dam. Water is conveyed through the head gates of the LACC canal in an easterly direction through Sections 9, 10, 11, and 13, of Township 23 South, Range 53 West, and Sections 18, 17, 20, 21, 22, and 23, of Township 23 South, Range 52 West of the 6th P.M. to the Purgatoire River. Approximately two miles from the Purgatoire River, a Parshall flume marks the beginning of the Consolidated Extension Canal. The Consolidated Extension Canal runs in a siphon under the Purgatoire River and proceeds another seven miles before tailing into the John Martin Reservoir.

Historically, the diversion dam water was used for irrigation of alfalfa, pasture grass, corn, wheat, and sorghum in the vicinity of the diversion dam and in Bent County. The water user's service area is located south of the diversion dam and the Arkansas River. The

general service area is shown in Figure No. 1. The acreage served by the diversion dam water is estimated at approximately 2,700 acres for the CECC.

1.3. PREVIOUS STUDIES

No other previous studies, drawings, or other documentation is available for the facility.

2.0 PROJECT SPONSOR

2.1. CORPORATE STRUCTURE

The CECC is a Colorado Mutual Ditch Company and a non-profit Corporation organized under the laws of the State of Colorado. The CECC was incorporated in 1910, although the ditch has been in existence since the 1870's when most of the senior water rights were appropriated. Refer to Appendix A which contains the Articles of Incorporation and By-laws of the CECC.

The CECC has the following powers and authorities:

1. CECC has the right of eminent domain. Reference the Colorado Revised Statutes (C.R.S.) §38-2-101.
2. Taxing or assessing authority. The CECC is not a governmental body and does not have the power to impose real estate taxes. The CECC has the authority to make an assessment on stock as is provided in C.R.S. §7-42-104. CECC's bylaws also permit it to foreclose on shareholders with delinquent assessments.
3. Authority to enter into contractual arrangements: General powers of the corporation are set forth in C.R.S. §7-40-102.

2.2. BOARD OF DIRECTORS

There are five directors of the CECC. All directors serve for one-year, and are elected at the annual stockholders meeting. The officers are elected by the Board of Directors. The CECC's bookkeeping and administrative services are performed by the officers of the ditch company, all of whom are Xcel Energy employees. Legal and engineering services are performed by independent consultants on an as-needed basis. The CECC has one employee, the ditch superintendent, who conducts the day-to-day operations of CECC's facilities including its dam and ditch system.

The Board of Directors has certain duties and responsibilities, which include the power to incur indebtedness, to enforce the payment of all assessments, and to pay bills. The full power and duties of the board are enumerated in Articles 5 and 6 of the Bylaws of the CECC, attached in Appendix A.

2.3. CURRENT SHAREHOLDERS

A total of 1233.25 shares of stock are held by stockholders and the total number of treasury shares is zero. Following in Table No. 1 is a list of stockholders and their share ownership.

**TABLE 1
LIST OF CECC STOCKHOLDERS**

Stockholder	No. Shares
Xcel Energy	660.25
Lloyde Gardner	305.5
U.S. Crop of Engineers	128
Harrell Ridley	77.5
Loyal Stephens	20
Mary and Cheryl Baker	16
Robert West	15
Lower Arkansas Valley Water Conservation District	11
	1233.25

Xcel Energy is currently leasing out all of its shares to irrigators. The stockholders and lessees are listed in Appendix B.

2.4. HISTORY OF ORGANIZATION

The CECC was formed in the mid 1870s when the first water rights were appropriated. The canal company was formally incorporated in the State of Colorado in 1910. The CECC has continuously provided water to irrigate approximately 2,700 acres of land in the vicinity of Las Animas, Colorado. In 1995, Public Service Company of Colorado purchased a majority interest in the Consolidated Extension Canal Company. Public Service Company of Colorado was subsequently purchased by Xcel Energy. Public Service Company or Xcel Energy has consistently leased back 100 percent of its water shares to irrigators every year since its purchase.

2.5. FINANCIAL STATUS

The CECC has historically derived most of its revenue from shareholder assessments. Other minor revenue sources include interest on savings accounts and other miscellaneous sources.

A summary of the CECC's financial report for fiscal years 2007, 2008, and 2009 is provided in Table No. 2. The complete financial reports are included in Appendix C. The CECC has typically operated in a cash neutral mode over the years, balancing income with expenses. In any particular year, however, income may not necessarily match expenses. CECC maintains a small operating reserve to fund capital projects and meet unanticipated expenses, respectively. Excess annual operating revenues are temporarily held in reserves until the next year when they are used to reduce anticipated expenditures, and thereby, reduce operating assessments required. In years where annual operating expenses exceed revenues, operating reserves are used until the next year's operating assessments are increased to fund the prior year's shortfall.

**TABLE 2
SUMMARY OF CECC FINANCIAL REPORTS**

	2007	2008	2009
Total Assets	\$358,655	\$360,235	\$366,102
Liabilities	\$-3,888	\$247	\$247
Capital Stock	\$50,000	\$50,000	\$50,000
Total Operating Revenue	\$35,919	\$39,857	\$49,821
Total Operating Expenses	\$37,261	\$42,412	\$43,955
Net Income (Deficit)	(\$1,342)	(\$2,555)	\$5,866

2.6. REVENUE SOURCES

The CECC derives most of its revenues from stockholder assessments. Approximately 54 percent of the CECC shares are owned by Xcel Energy. All of the CECC shares are used for irrigation or leases to local irrigators in Bent County.

2.7. PHYSICAL ASSETS

The CECC owns a diversion dam (the repair of which is the subject of this feasibility report) and 10.0 miles of irrigation canal and appurtenant structures.

3.0 WATER RIGHTS

3.1. WATER RIGHTS

The decreed water rights for the LACC and CECC are listed below in Table No. 3.

**TABLE 3
LACC WATER RIGHTS**

Water Right	Appropriation Date	Flow in cfs
LACC	4-10-1875* ¹	22.3
LACC	12-3-1884* ²	22.0
LACC	3-13-1888	80.0
CECC	3-7-1884	5.5
CECC	4-15-1909	44.8

*¹ Transferred to Catlin Canal

*² Catlin decree transferred to LACC headgate

3.2. WATER DIVERSIONS

The CECC water diversion records are provided in Table No. 4 for the years 1911 through 2008. Annual diversions have ranged from about 2,500 to nearly 56,000 acre-feet. On average, about 26,000 acre-feet of water is diverted from the diversion dam to local irrigators in Bent County.

TABLE 4
LAS ANIMAS DITCH DIVERSION DAM DIVERSION RECORDS
MONTHLY DIVERSION (in acre feet)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1911	0	1,222	1,353	1,309	2,416	2,985	2,579	2,095	2,073	797	0	0
1912	0	0	0	545	2,416	4,679	4,344	3,473	2,343	1,906	0	0
1913	0	0	0	2,487	2,275	3,806	3,005	1,841	2,354	2,947	742	143
1914	0	0	0	1,726	3,285	4,106	4,487	3,945	2,856	1,240	1,630	1,410
1915	902	555	615	956	3,717	5,256	4,193	3,477	3,285	2,613	1,267	746
1916	0	0	849	2,975	3,239	3,408	3,035	2,422	2,959	3,074	0	0
1917	0	0	0	0	0	1,507	4,433	4,622	2,045	1,307	877	1,835
1918	196	109	1,958	2,285	1,628	5,486	4,052	2,394	2,410	2,583	0	0
1919												
1920	0	0	0	0	2,947	4,534	4,310	3,096	3,035	3,136	0	0
1921	0	0	0	2,275	3,219	2,174	3,947	2,906	3,392	4,138	3,380	1,363
1922	0	0	1,279	1,337	3,267	6,038	3,166	3,132	1,892	2,158	2,077	603
1923	530	478	1,400	2,069	1,595	3,602	3,675	2,428	3,872	2,218	557	0
1924	0	0	0	1,055	4,072	6,421	3,580	2,188	1,662	2,870	2,773	383
1925	0	149	1,630	1,906	2,305	2,920	4,124	3,118	2,906	1,464	129	783
1926	0	744	2,416	2,757	5,014	4,007	4,651	2,658	1,271	2,610	2,975	1,182
1927	0	1,864	2,241	2,366	2,793	4,457	3,253	2,779	3,225	2,777	2,817	615
1928	311	1,265	2,483	2,434	2,448	2,797	4,261	3,043	2,410	2,069	0	0
1929	307	208	2,023	1,742	2,539	5,609	4,009	3,550	3,846	1,831	0	0
1930	381	932	2,628	2,535	3,251	3,507	3,459	4,828	3,041	2,906	337	0
1931	0	756	1,597	2,670	3,358	2,779	1,678	953	1,053	547	1,152	0
1932	0	595	1,067	823	2,452	4,013	4,062	3,348	1,484	2,852	2,975	0
1933	0	0	1,053	875	3,469	6,593	3,289	3,572	2,785	1,759	2,192	0
1934	0	0	2,241	1,043	2,491	1,307	815	873	1,317	415	482	0
1935	0	0	432	399	2,247	3,824	3,967	2,585	2,152	1,730	2,408	0
1936	10	111	805	1,055	4,070	3,519	3,132	3,489	2,549	1,708	1,716	1,577
1937	153	460	2,210	2,479	4,054	1,111	2,692	1,775	2,126	1,182	1,406	722
1938	696	1,377	1,658	1,773	3,047	4,013	4,467	2,045	2,273	2,825	664	0
1939	155	0	837	2,108	3,995	3,312	1,581	1,611	823	290	422	789
1940	0	161	1,962	868	1,812	2,544	1,287	820	1,888	876	1,282	698
1941	0	734	1,997	1,904	3,724	4,189	2,789	3,211	1,477	1,288	2,081	1,500
1942	0	724	1,480	1,317	3,707	2,404	3,265	2,583	1,970	2,043	1,353	0
1943	0	1,133	1,420	2,099	3,408	5,119	3,620	3,320	2,634	2,426	2,362	250
1944	0	0	224	627	2,049	3,892	2,287	2,344	974	1,357	1,256	387
1945	0	0	1,442	1,636	3,227	4,905	4,336	3,041	2,823	3,053	1,486	545
1946	446	853	1,488	1,281	3,404	5,020	3,094	2,487	2,610	1,484	238	0
1947	119	83	633	1,904	3,368	3,457	3,451	4,276	4,286	3,176	2,275	1,057
1948	664	0	40	2,233	4,629	3,336	4,136	4,265	1,291	2,848	1,751	1,210
1949	0	0	2,604	2,515	3,749	3,638	6,228	2,844	2,753	3,090	3,152	1,198
1950	12	0	712	1,156	2,870	4,703	4,227	1,841	2,854	1,386	1,902	1,178
1951	379	889	1,803	1,416	2,945	4,334	3,713	3,975	932	1,396	2,229	720
1952	0	351	1,454	3,255	4,983	5,348	3,898	3,459	2,346	2,402	2,178	659
1953	75	1,783	2,104	1,091	2,225	5,304	3,533	3,788	369	928	2,592	756
1954	71	770	1,361	339	2,481	1,563	2,384	1,712	313	641	522	1,585
1955	1,718	1,809	853	365	2,293	3,630	2,507	3,896	1,525	623	1,714	1,418
1956	910	266	1,484	887	3,237	5,296	2,602	2,283	341	541	470	1,601
1957	1,099	1,420	962	2,688	3,759	6,022	8,047	7,341	3,624	2,505	1,490	1,321
1958	266	0	244	2,362	3,808	5,740	5,032	2,868	2,370	2,015	1,745	740
1959	317	0	1,755	2,771	3,541	6,139	2,493	1,135	494	2,971	1,765	1,855
1960	543	0	0	2,047	3,168	5,603	4,243	1,190	803	918	1,805	335
1961	46	119	1,000	1,978	2,684	5,280	3,660	4,713	3,059	2,898	2,773	678
1962	0	0	1,579	4,094	4,288	5,490	6,016	2,957	1,517	2,378	2,128	1,400
1963	0	337	159	595	1,898	2,479	871	2,394	2,757	526	1,490	359
1964	0	0	1,553	1,105	1,135	3,634	2,350	1,958	512	337	1,099	1,202
1965	887	690	1,394	1,557	3,205	3,057	6,077	4,586	3,727	1,593	1,386	1,067
1966	371	278	1,734	716	4,090	4,489	5,925	6,446	3,191	1,767	2,222	0
1967	1,357	1,864	2,019	2,243	3,370	6,226	4,981	4,463	4,118	2,924	2,953	89
1968	599	1,751	2,456	3,114	3,695	6,317	5,683	6,222	4,626	3,160	2,239	1,277
1969	918	1,408	889	2,309	3,592	4,536	7,172	5,284	3,487	1,202	837	1,250
1970	922	462	2,257	2,432	6,766	7,000	6,637	5,363	4,042	3,027	2,257	1,317
1971	906	960	2,212	3,949	3,683	6,559	6,313	4,495	4,027	3,344	1,845	223
1972	184	593	1,749	1,980	2,128	5,268	3,441	2,392	2,216	1,351	799	442
1973	300	236	1,101	1,301	3,735	5,734	5,933	3,269	2,640	2,148	1,720	583
1974	307	827	1,638	2,126	2,755	3,550	2,313	833	438	827	2,997	1,418
1975	1,347	1,488	2,696	1,742	1,581	5,532	5,915	3,283	1,922	1,672	1,950	0
1976	0	0	1,329	2,041	2,045	3,947	3,152	3,267	2,299	2,987	2,083	0
1977	0	0	1,448	1,922	2,259	2,106	2,758	3,340	783	432	1,987	1,970
1978	1,523	1,083	1,273	417	1,511	5,137	3,894	2,565	1,070	338	188	0
1979	0	0	1,171	1,894	2,938	5,554	5,389	3,880	2,648	4,177	2,214	0
1980	0	0	476	2,283	3,531	5,812	5,353	4,298	4,147	3,039	0	0
1981	0	0	1,295	1,888	2,394	3,160	2,725	5,707	4,151	1,664	2,680	603

TABLE 4 (Cont.)
LAS ANIMAS DITCH DIVERSION DAM DIVERSION RECORDS
MONTHLY DIVERSION (in acre feet)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982	0	0	518	964	2,690	2,985	4,138	5,389	3,150	2,101	1,281	0
1983	0	0	563	2,880	3,588	3,384	7,083	6,893	4,090	2,333	1,396	0
1984	0	0	0	863	3,900	6,496	5,470	6,595	4,240	2,305	2,445	575
1985	0	0	898	2,918	4,647	5,704	5,832	5,538	3,801	3,430	1,204	0
1986	0	0	1,887	3,128	4,144	6,230	7,105	5,182	2,264	2,915	1,182	0
1987	0	0	1,155	2,704	4,678	5,684	5,806	4,658	4,549	4,038	1,555	0
1988	0	0	1,419	2,909	3,442	5,536	6,121	4,355	2,905	3,111	1,397	0
1989	0	0	1,617	3,162	3,281	4,258	4,699	3,438	2,636	2,774	1,332	0
1990	0	0	1,463	2,604	3,500	4,633	5,101	4,506	2,753	2,362	975	0
1991	0	0	1,617	2,788	3,238	4,987	4,733	4,758	3,033	3,099	233	0
1992	0	0	1,429	3,386	4,789	4,667	4,382	4,218	3,040	2,916	1,484	0
1993	0	0	861	2,707	4,046	5,563	6,781	4,108	3,026	3,098	1,669	0
1994	17	0	1,754	3,275	4,059	6,104	5,246	3,260	3,231	2,511	1,439	0
1995	0	0	1,790	3,074	2,076	1,919	4,935	7,626	5,454	3,011	1,456	0
1996	0	0	2,176	4,556	5,458	5,768	5,091	5,574	5,136	3,918	1,607	0
1997	0	0	2,068	4,385	6,297	5,719	6,646	5,402	5,730	3,182	0	0
1998	0	0	1,109	2,543	6,213	5,704	3,780	3,781	5,101	4,749	1,607	0
1999	0	0	2,325	3,759	3,022	6,001	6,880	6,571	5,334	3,888	2,617	0
2000	0	0	2,321	4,439	5,402	5,630	4,648	3,188	2,960	3,045	2,037	0
2001	0	0	1,691	3,392	3,761	3,262	4,126	4,001	2,997	3,043	1,646	0
2002	0	0	1,541	1,529	1,205	1,279	525	348	269	792	440	0
2003	0	0	1,428	2,087	2,890	5,911	2,772	606	768	476	620	0
2004	0	0	1,779	3,745	4,261	2,974	3,273	2,936	2,356	2,980	671	0
2005	0	0	1,789	3,569	4,666	4,357	4,279	2,888	850	2,420	1,392	0
2006	0	0	1,947	2,007	3,380	4,798	4,074	3,253	2,833	3,009	1,041	0
2007	0	0	1,407	3,499	4,325	5,089	3,960	4,481	3,542	3,370	1,330	0
2008	0	0	1,968	3,387	4,727	7,252	5,371	4,318	3,384	3,444	-	-
Minimum	0	0	0	0	0	1,111	525	348	269	290	0	0
Maximum	1,718	1,864	2,696	4,556	6,766	7,252	8,047	7,626	5,730	4,749	3,380	1,970
Average	206	349	1,348	2,090	3,309	4,461	4,174	3,510	2,607	2,227	1,464	475

4.0 PROJECT DESCRIPTION AND ALTERNATIVES ANALYSIS

There is no historical documentation available on the design or construction of the diversion dam, but based on the date of the water rights, it is likely that some type of river diversion was constructed on the Arkansas River during the 1870s and 1880s. The diversion dam appears to have been modified numerous times to address deterioration of the structure and increased erosion and head cutting downstream of the diversion dam. The dam is considered to be a diversion dam because it impounds an insignificant volume of water, so it would be exempt from design review and approval of the Dam Safety Branch of the Colorado Division of Water Resources.

The diversion dam's key features and existing condition are documented on Figure Nos. 2 through 4. The diversion dam is essentially a 200-foot-wide sheet pile wall that is constructed across the Arkansas River to divert water into the canal system. The sheet pile wall is connected to a reinforced concrete gate structure at the right bank of the river. The gate structure includes an 18-foot-wide tainter gate that controls inflows to the canal system and a 10-foot-wide, low-level tainter gate that was apparently designed to flush sediments around the structure.

It is Wheeler's opinion that the sluice gate is too small to adequately flush the large sediment flows that can occur in the Arkansas River. As a result, sediment has built up to within a foot of the top of the diversion dam. The diversion dam has acted as a sediment trap for many years, so cleaner water has flowed over the diversion dam causing excessive river bed head cutting and scour downstream of the diversion dam. The lack of an adequate sediment flushing feature has also contributed to the deterioration of the canal intake gates. It appears that the canal companies have made significant repairs to the diversion dam over the years in an attempt to minimize the downstream scour. A 100-foot-wide concrete wall appears to have been constructed and connected to the sheet pile wall near the right side of the diversion dam around 1957. At some point in time, one-foot-diameter steel caissons were installed downstream of the dam to help support the sheet pile and concrete diversion dam and to support a timber deck that runs across the downstream face of the diversion dam. It is believed that the timber deck was intended to dissipate the energy of water flowing over the diversion dam as the scour downstream of the dam increased. As shown on Figure No. 4, the downstream erosion has progressed to the point that the river bed

immediately downstream of the diversion dam is up to 13 feet lower than the river bed immediately upstream of the sheet pile.

The objective of this project is to construct a repair to the diversion dam that will prevent its failure and ensure safe and reliable future operation of the diversion system. A secondary objective is to make repairs to the gates and deteriorated concrete in the floor of the gate structure. Consistent with the CWCB guidelines, four alternatives were considered to meet the project objectives. The alternatives are listed below, followed by a brief description of and a comparison of the alternatives. The alternatives are:

- 1) No Action Alternative
- 2) Alternative No. 1 - Reinforced Concrete Buttress
- 3) Alternative No. 2 – Grouted Riprap Buttress
- 4) Alternative No. 3 - Roller Compacted Concrete Buttress

4.1. ANALYSIS OF ALTERNATIVES

No Action Alternative

The diversion dam is now failing and excessive scour is undermining the foundation of the caisson support system and the deck has collapsed near the maximum scour section. Some of the steel caissons are also severely corroded. We understand that the collapsed deck was first observed in March of 2009. As shown on the photos on Figure No. 4, the failure of the decking and diversion dam support system has progressed significantly from March 24, 2009 to January 12, 2010. It is Wheeler's opinion that diversion dam decking and support system failure rate will accelerate, which will accelerate the erosion at the downstream toe of the diversion dam until there no longer is any support for the diversion dam. When enough downstream support is lost, the sheet pile and concrete diversion dam will collapse. Peak river flows along this section of the Arkansas River have historically been recorded as high as 50,000 cubic feet per second (cfs). It is Wheeler's opinion that any significant river flows over the diversion dam could fail the structure, and safe and reliable operation of the diversion dam cannot be guaranteed for another irrigation season. Wheeler recommends immediate repairs to prevent the diversion dam from failing. If no action is taken, the diversion dam and the canal companies' ability to divert water could be lost in the very near future.

Alternative No. 1 – Reinforced Concrete Downstream Buttress

This alternative consists of removal of the existing wooden decking on the downstream face of the dam, cutting off the existing steel and wooden decking caissons and constructing a series of reinforced concrete buttress walls downstream of the dam to support the vertical face of the diversion dam. A reinforced concrete chute, energy dissipation blocks, and end sill would be constructed between each buttress. The concrete chute would further limit downstream erosion. The concrete blocks and an end sill would dissipate the energy of water flowing over the diversion dam before it returns to the natural Arkansas River bed. A plan view and typical cross-section for Alternative No. 1 is provided on Figure Nos. 5 and 6. The budget opinion detail for Alternative No. 1 is provided in Appendix D.

Alternative No. 1 would be constructed in two phases. The first construction phase would need to be complete on or before April 1, 2010, so that contracted water deliveries could begin. The objective of the first construction phase is to repair the worst section of downstream erosion from Station 2+00 to 2+80. The first phase would involve excavating a temporary diversion channel through the left abutment to divert winter river flows around the work area. The deck and caissons in this area would be demolished, and excavation to bedrock would be required for a solid foundation for the buttress walls. Based on test pits excavated on January 12, 2010, the excavation depth to bedrock is estimated to be five to seven feet deep. A dewatering system would need to be installed immediately upstream of the diversion dam and around the work area to allow dry concrete placement. Phasing of the concrete construction will also be important to allow proper construction of concrete joints to minimize future expansion and contraction damage and to prevent the collapse of the existing diversion dam during construction. During the time that the river is diverted around the diversion dam, the gate structure would be dewatered and inspected to assess gate repair work that would need to be completed during Phase 2 of the repairs. We have also included geotechnical borings and laboratory testing during Phase 1 to confirm foundation rock strength and bedrock locations to design the second phase of the project. At the end of Phase 1, the contractor would complete site clean-up and demobilize from the site and construct an earthen plug in the temporary diversion channel to redirect the river back to the diversion dam.

The second Phase of construction would occur between November 15, 2010 and March 15, 2011. During this phase of construction, the river would again be diverted through the left abutment diversion channel. The remaining wooden decking and support caissons would be demolished and the remaining concrete buttress walls and chute sections constructed from Station 0+80 to 2+00. A reinforced concrete facing wall would also be placed against the sheet pile wall to reinforce the diversion dam and to direct higher river flows through the center of the river channel and flush sediments through the diversion dam to minimize further downstream head cutting and gate damage. Excavation to bedrock and dewatering would also be required similar to what was described above for Phase 1 construction. A small, seven-foot-high, 50-foot-wide reinforced concrete emergency spillway wall and riprap apron would be constructed from Station 0+30 to 0+80 in the area where the depth to the downstream river bed is much less. During Phase 2, the gates would also be repaired to minimize gate leakage. The repair is anticipated to include replacing deteriorated concrete in the gate structure floor and installing J-seals on the sides and bottom of the radial gates.

Our opinion of the total project budget required for Alternative No. 1 is \$2,100,000.

Alternative No. 2 – Grouted Riprap Downstream Buttress

This alternative also includes removal of the existing wooden decking on the downstream face of the dam and cutting off the existing steel caissons and wooden decking supports and buttressing the existing sheet pile wall with a sloped grouted riprap chute that would be anchored at the downstream end with a concrete cut-off wall. Large riprap would need to be hauled from Canyon City for this alternative, which will be expensive, but dewatering and excavation to solid bedrock would not be required, so the construction would be less complicated. A plan view and typical cross-section for Alternative No. 2 is provided on Figure Nos. 7 and 8. The budget opinion detail for Alternative No. 2 is provided in Appendix D.

Alternative No. 1 would also be constructed in two phases, with the first phase completed on or before April 1, 2010. Similar to Alternative No. 1, the objective of the first construction phase is to repair the worst section of downstream erosion from Station 2+00 to 2+80. The first phase would also involve excavating a temporary diversion channel through the left abutment to divert winter river flows around the work area. The deck and caissons in this area would be demolished and immediately buttressed with large riprap. During the time

that the river is diverted around the diversion dam, the gate structure would be dewatered and inspected to assess gate repair work that would need to be completed during Phase 2 of the repairs. No other geotechnical investigations or excavations would be required because the riprap could be placed on the existing river alluvium, which is a fine to coarse grained sand. At the end of Phase 1, the contractor would also complete site clean-up and demobilize from the site and construct an earthen plug in the temporary diversion channel to redirect the river back to the diversion dam.

The second Phase of construction would also occur between November 15, 2010 and March 15, 2011. During this phase of construction, the river would again be diverted through the left abutment diversion channel. The remaining wooden decking and support caissons would be demolished and the remaining concrete buttress walls and chute sections constructed from Station 0+80 to 2+00 and the grouted riprap buttress placed downstream of the this section of the sheet pile wall. No reinforced concrete facing wall is included in this alternative and the exiting sheet pile wall would continue to service as the diversion dam facing. The 50-foot-wide reinforced concrete emergency spillway wall and riprap apron would be constructed from Station 0+30 to 0+80 in left abutment area similar to the wall included in Alternative No. 1. The grouted riprap apron will be more susceptible to future damage and will require more maintenance than the reinforced concrete buttress alternative, but the construction is expected to be simpler, less risky, and not as weather dependent as the reinforced concrete buttress. The overall project cost would also be much lower.

Our opinion of the total budget required for Alternative No. 2 is \$1,200,000.

Alternative No. 3 – Roller Compacted Concrete Buttress

This alternative is similar to the reinforced concrete buttress alternative, but the downstream buttress would be constructed of less costly roller compacted concrete (RCC) that could be constructed quicker, with less risk, and could be completed in one Phase on or about April 1, 2010. This alternative would only be feasible if a specialty contractor, ASI Constructors, Inc. from Pueblo, could be awarded a sole source contract in February. This alternative could be slightly more expensive than Alternative No. 2, but would provide a more reliable structure with less future operation and maintenance. If Xcel Energy chooses to pursue this

approach, immediate discussions with ASI are recommended to see if on-site river bed sands could be used with imported gravels to further reduce the cost of the RCC.

Alternative No. 3 would include mobilizing an RCC batch plant to the site and would require several acres of staging area for aggregate stockpiles, a batch plant, and conveyors to the project site. This alternative would also require complete removal of the existing wooden decking and caisson system on the downstream face of the dam. A convention concrete facing would be placed against the existing sheet pile wall and foundation excavation to bedrock and site dewatering would also be required until the RCC is constructed above the water table. A plan view and typical cross-section for Alternative No. 3 is provided on Figure Nos. 9 and 10. The budget opinion detail for Alternative No. 1 is provided in Appendix D.

Alternative No. 3 would also include constructing the temporary diversion around the work site and inspection and repair of the gates during the Phase 1 work. The 50-foot-wide reinforced concrete emergency spillway section would also be included in this alternative that would be similar to Alternative Nos. 2 and 3, but this emergency spillway control section could be constructed from less costly RCC rather than reinforced concrete.

Our opinion of the total project budget required for Alternative No. 3 is \$1,275,000. Because of the cost of mobilizing specialty equipment and batch plants to the site, it should be constructed in one Phase. There is a higher probability that this project construction could extend a few weeks beyond April 1, 2010, but it would be complete without a second contractor mobilization.

4.2. ALTERNATIVE COMPARISON

A comparison of some of the key decision criteria associated with the alternatives developed for this feasibility study is provided in Table No. 5 below.

**TABLE 5
ALTERNATIVE COMPARISON SUMMARY**

Alternatives	Descriptions	Project Budget	Expected Reliable Future Operations
No Action	No Structural Modifications	\$35,000	no
Alternative No. 1	Concrete Buttress	\$2,100,000	high
Alternative No. 2	Riprap Buttress	\$1,200,000	moderate
Alternative No. 3	RCC Buttress	\$1,275,000	high

4.3. SELECTED ALTERNATIVE

The final decision of the appropriate alternative is up to the CECC, the LACC, and Xcel Energy. Wheeler recommends that the canal companies consider Alternative No. 3 because it could be initiated immediately and could be completed by April 1, 2010 or shortly thereafter. It may not be the least costly alternative, but it would provide a more reliable diversion dam than the grouted riprap alternative. Further discussions with ASI and some additional testing of the use of on-site soils for aggregate could substantially reduce the cost of the project below what is documented in Appendix D.

Before work can be initiated on any project alternative a temporary easement for staging and stockpiling and access to the site must be negotiated with the local land owner. It is also recommended that the CECC and LACC obtain written confirmation from the U.S. Army Corps of Engineers that this project can be constructed under Nationwide 404 Permit No. 4, Maintenance of an Existing Structure.

4.4. IMPLEMENTATION SCHEDULE

The following schedule is proposed for implementation of the project:

<u>Task</u>	<u>Target Completion Date</u>
1. CWCB Loan Approval	May 19, 2010
2. Contractor Selection	October 1, 2010
3. Contractor Mobilization	November 1, 2010
4. Construction Complete	March 1, 2011
5. Begin Irrigation Diversions	March 15, 2011
6. Record Drawings Submitted	June 15, 2011

5.0 SOCIAL, ECONOMIC, AND PHYSICAL IMPACTS

This emergency maintenance project is not expected to have any significant adverse social, environmental, or physical impacts. The cost of the project may have some minor economic impacts on some of the minor canal company shareholders.

There are no known historical or archaeological sites within the construction area. No threatened or endangered species habitat or jurisdictional wetlands are expected to be impacted by the construction. Although some minor, temporary construction impacts are expected during the construction period, no long-term physical impacts are expected after the project is complete.

Although some of the minority CECC shareholders may be impacted by increased assessments to pay for their share of the project, these increased assessments are considered to pale in comparison to the economic and social impacts associated with the loss of water deliveries associated with the failure of the diversion dam if no action is taken to repair the structure.

6.0 INSTITUTIONAL FEASIBILITY

6.1. STATE ENGINEER APPROVAL

In accordance with the 2007 Rules and Regulations for Dam Safety and Dam Construction, the diversion dam is not considered to be a non-jurisdictional diversion dam by Rule 4.2.5.6. because it impounds an insignificant amount of water storage and the height of the dam as measured at its centerline is less than ten feet. However, a written notice of intent to repair a non-jurisdictional size dam must be submitted to the Colorado Office of the State Engineer, Dam Safety Branch prior the construction of the repairs. The State Engineer will determine if the submittal of plans and construction is required based on the potential for loss-of-life or significant property damage if the dam were to fail. The requirement for Dam Safety Branch review and approval is not expected for the emergency repair of this non-jurisdictional, diversion dam.

6.2. PERMITTING

A summary of other possible permit requirements is provided below. Possible permit requirements and current status are listed below.

1. **Bent County Permits:** We are not aware of any permit requirements, including HB1041 permits, in Bent County for this emergency repair project.
2. **Fugitive Particulate Air Pollution Emission Notice/Control Plan Permit with the Colorado Department of Health and Environment:** The construction contractor will be required to obtain this permit, which is a routine permit required for most construction projects.
3. **Stormwater Discharges Associated with Construction Activity Permit with the Colorado Department of Health and Environment:** The construction contractor will be required to obtain this permit, which is a routine permit required for most construction projects.
4. **Nationwide Maintenance 404 Permit:** This project is expected to be authorized under Nationwide Maintenance No. 3; Maintenance to an Existing Structure, in accordance with Section 404(b) of the Clean Water Act. A preconstruction notification will need to be submitted to the U.S. Army Corps of Engineers Pueblo Regulatory Office prior to initiating construction. No federal lands, federal funding, or federal decisions are associated with this project, so no further National Environmental Policy Act (NEPA) compliance work such as preparing an Environmental Assessment or Environmental Impact Statement is expected to be required for this project.

5. Temporary Construction Easement

A temporary construction easement will need to be negotiated with the local landowner for staging and stockpiling and access during construction. If the contractor chooses to access the site from Highway 50, south of the construction site, an easement to cross the Burlington Northern and Santa Fe railroad will be required. If the contractor chooses to access the construction site from the Highway 194, north of the construction site, an access agreement will be needed from two to three local land owners.

7.0 FINANCIAL FEASIBILITY ANALYSIS

7.1. LOAN AMOUNT AND FINANCING SOURCES

As documented in Appendix D, opinion of total cost for the preferred alternative, the RCC buttress is \$1,275,000. Xcel Energy has committed to pay for 80 percent of the project cost from its capital cash reserves. Xcel Energy's share of the total project budget is \$1,020,000, which leaves \$255,000 to be split between the LACC and CECC. The CECC percentage of the remaining \$255,000 is 70 percent or \$178,500. The annual payment associated with a Colorado Water Conservation Board (CWCB) loan at 2.75 percent interest over a 30-year repayment period is \$8,815.

7.2. FINANCIAL PROJECTIONS

A financial plan has been prepared to show the projected revenues and expenses of the CECC and demonstrate the ability of the CECC to fund this emergency repair project and to repay the loan sought from the CWCB. The financial plan is included in Appendix E. Revenues required to fund the annual loan payment will include a modest increase in annual operation shares and a special assessment of the non-Xcel shareholders of \$15.39 per share throughout the 30-year life of the loan.

7.3. COLLATERAL

The CECC receives assessments from its stockholders and intends to pledge the assessments as collateral to assure repayment of the CWCB loan. The CECC's water rights, which are millions of dollars greater than the cost of the project, are also offered as collateral for the CWCB loan.

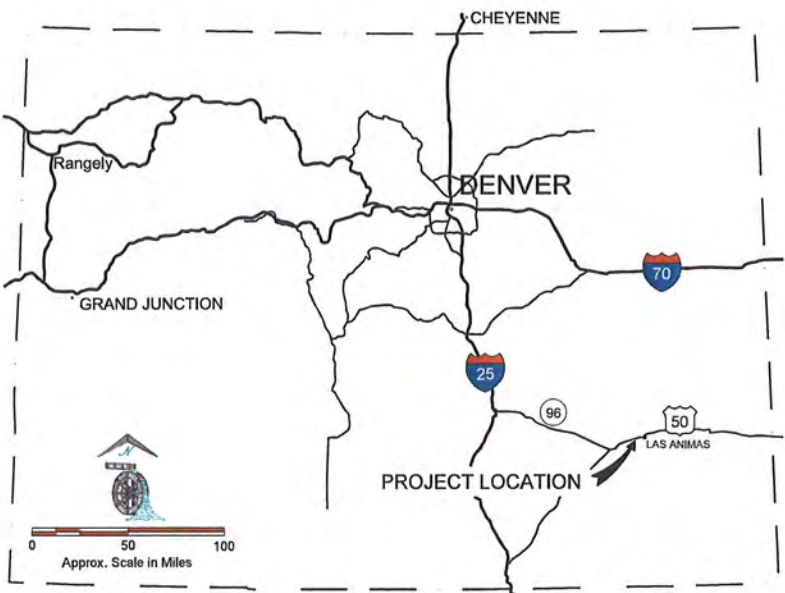
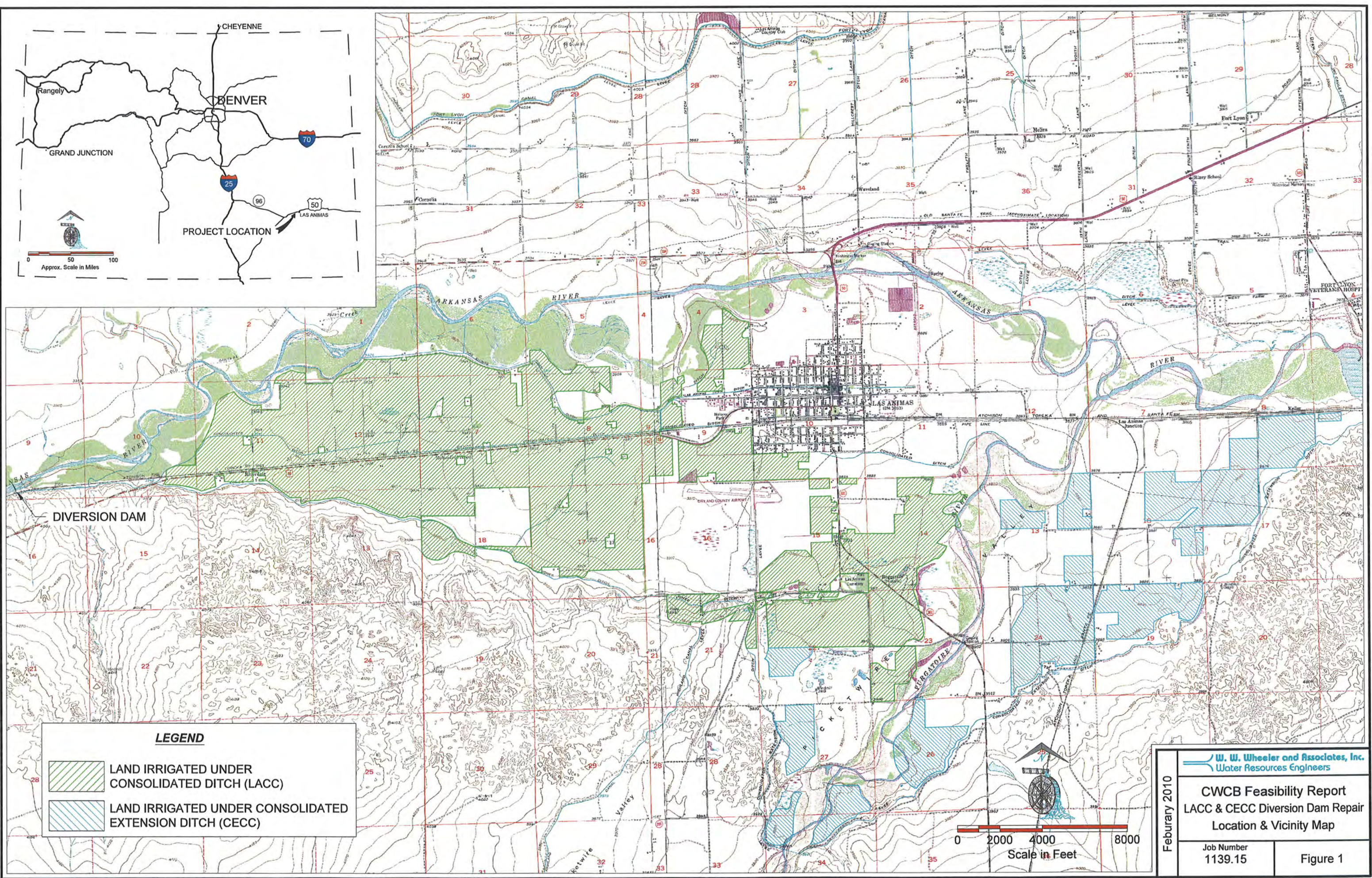
7.4. CREDITWORTHINESS

The CECC is considered to be in a strong financial condition and has no long-term debt outstanding.

8.0 CONCLUSION AND RECOMMENDATION

This emergency repair is important to keep vital irrigation water flowing to more than 8,000 acres of irrigated farm land in Bent County. If these emergency repairs are not implemented immediately, the loss of the diversion dam in 2010 is possible. The preferred alternative, constructing a RCC buttress is considered to be feasible. A local, very experienced specialty contractor, ASI Constructors, Inc. is prepared to immediately mobilize to construct the project. Xcel Energy has committed to pay for 80 percent of the project costs with cash from its capital reserves. The financing plan provided in Appendix E indicates that the remainder of the project is viable and can be repaid by the local irrigators.

R:\11001139\1139\DRAWINGS\Las Animas Consolidated Canal 1-29-10 11:27 am Scott XREFS: 20100126153156_00001; 20100126153156_00002; 20100126153156_00003; Colorado; c38103a1_fut; c38103a2_fut; c38103a3_fut



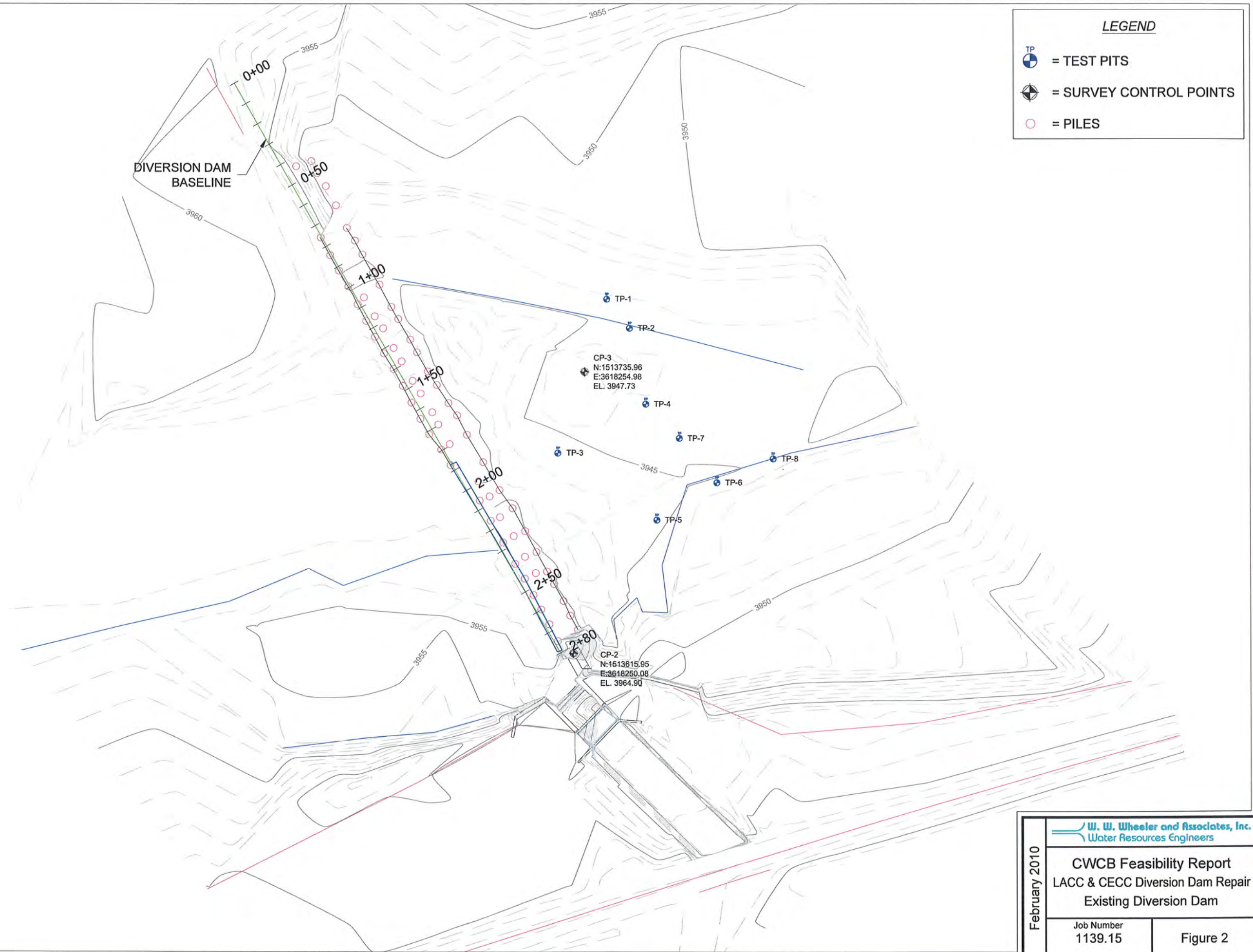
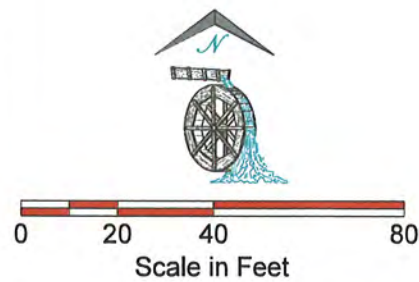
February 2010

W. W. Wheeler and Associates, Inc.
Water Resources Engineers

CWCB Feasibility Report
LACC & CECC Diversion Dam Repair
Location & Vicinity Map

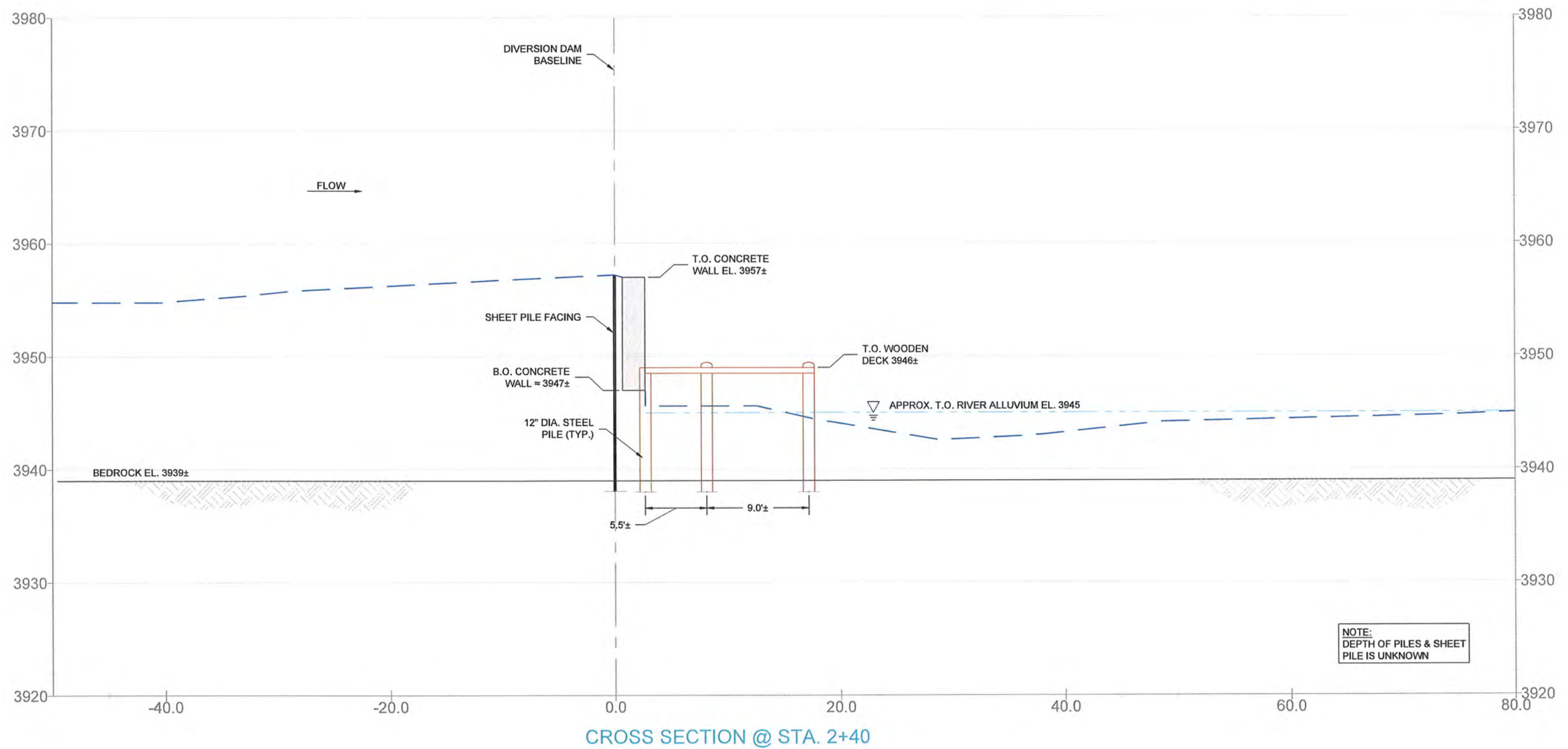
Job Number 1139.15	Figure 1
-----------------------	----------

R:\1100\1139\1139_15\2010_Diversion_Dam_Repairs\DRAWINGS\Original Surveys\as animas diversion dam 2-01-10 08:53am Scott XREFS: Assessor Map 2: Climax-Logo: LACCDivPanorama: Wheeler-Logo:



February 2010		
	CWCB Feasibility Report LACC & CECC Diversion Dam Repair Existing Diversion Dam	
	Job Number 1139.15	Figure 2

R:\11001139\139_15\2010_Diversion_Dam_Repair\Drawings\Original Survey\Las Animas diversion dam 2-01-10 08:53am Scott XREFS; Assessor Map 2; Climax-Logo; LACCDivPanorama; Wheeler-Logo;



February 2010		
	CWCB Feasibility Report	
	LACC & CECC Diversion Dam Repair	
	Existing Diversion Dam	
	Typical Cross Section	
	Job Number	Figure 3
	1139.15	



Downstream Face Panorama View
(January 12, 2010)

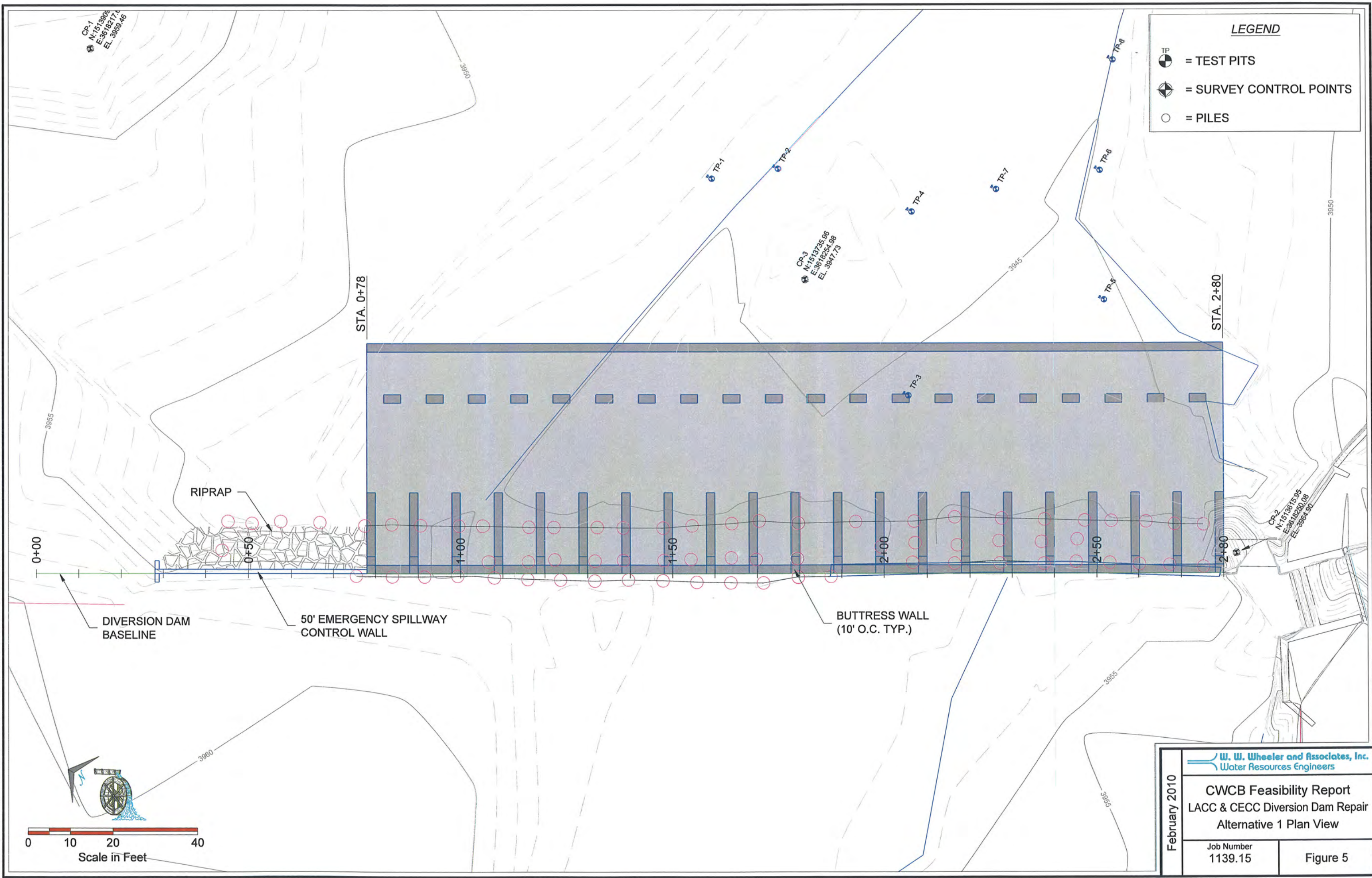


Close-up View of Worst Section
(January 12, 2010)

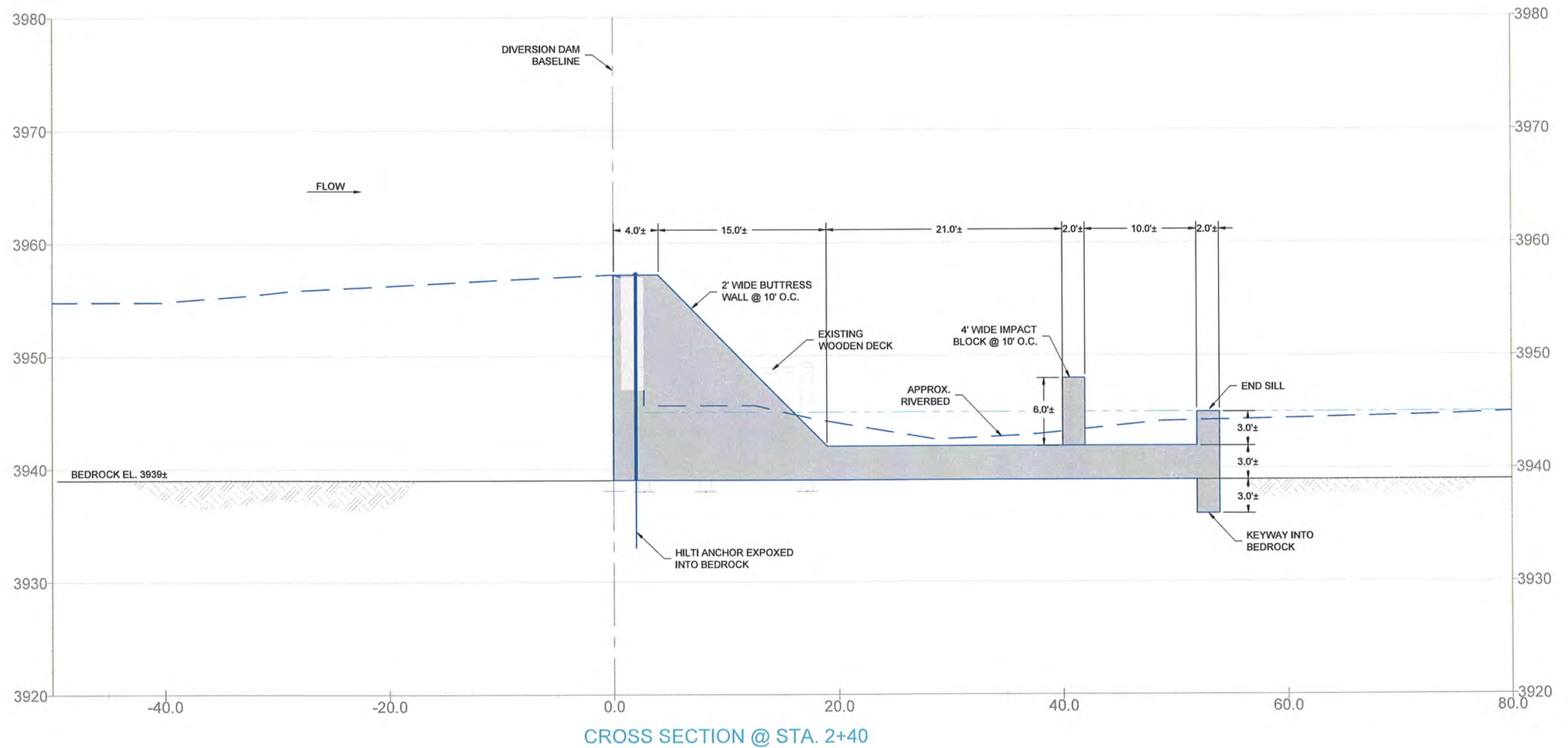


Close-up View of Worst Section
(March 24, 2009)

R:\11001139\1139_152010_Diversion_Dam_Repair\DRAWINGS\Original Survey\as animas diversion dam 2-01-10 08:53am Scott XREFS: Assessor Map 2; Clinax-Logo; LACCDivPanorama; Wheeler-Logo;

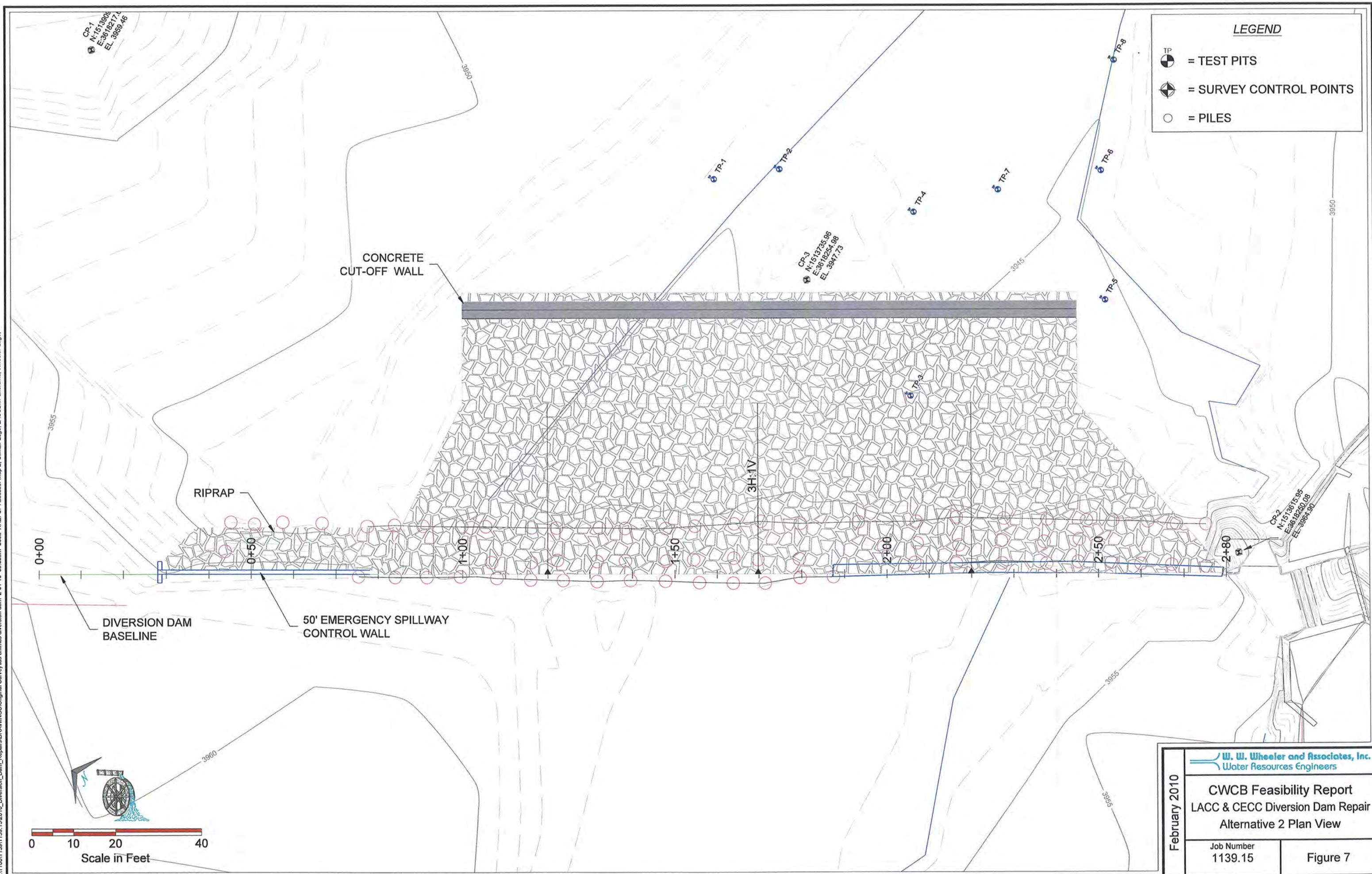


R:\11001138\1138_152010_Diversion_Dam_Repair\DRAWINGS\Original Survey\las animas diversion dam 2-01-10 08:53am Scott XREFS: Assessor Map 2; Climax-Logo; LACCDivPanorama; Wheeler-Logo;

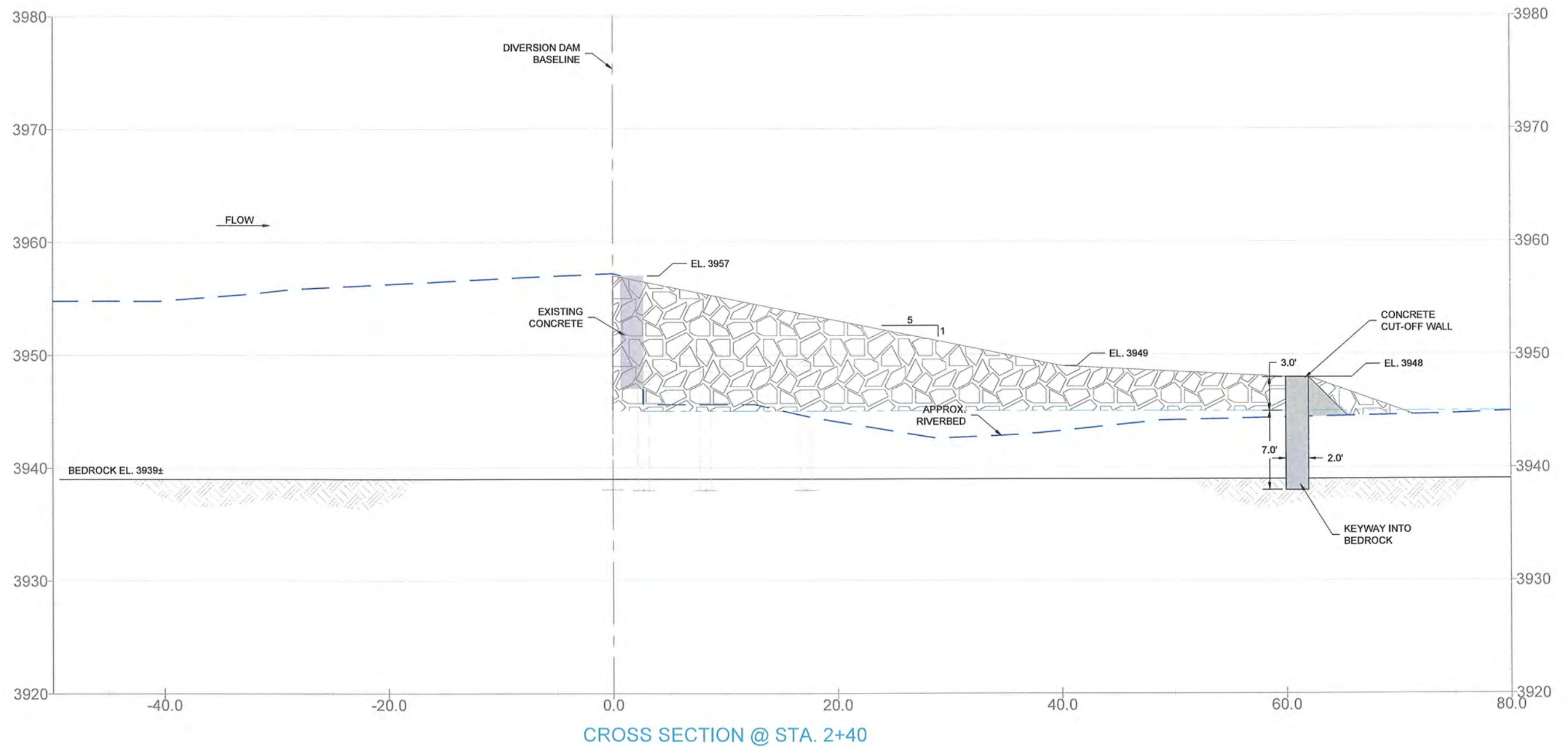


February 2010		
	CWCB Feasibility Report	
	LACC & CECC Diversion Dam Repair	
	Alternative 1	
	Typical Cross Section	
	Job Number 1139.15	Figure 6

R:\1100\1139\1139_152010_Diversion_Dam_Repair\Drawings\Original Survey\Las Animas diversion dam 2-01-10 08:53am Scott XREFS: Assessor Map 2, Climax-Logo, LACCDivPanorama, Wheeler-Logo;

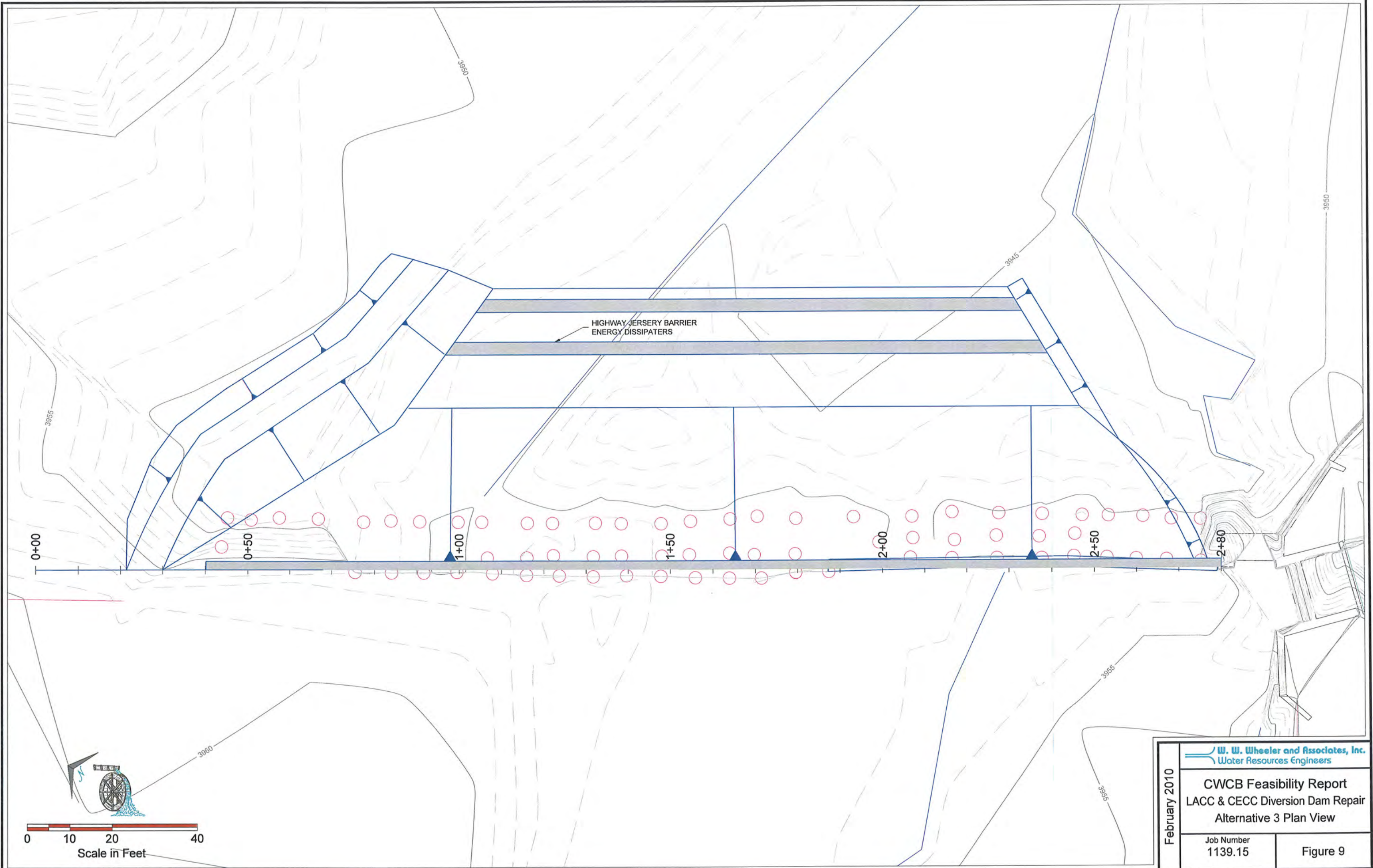


R:\1100\1139\1139_15\2010_Diversion_Dam_Repairs\DRAWINGS\Original Survey\as animas diversion dam 2-01-10 08:53am Scott XREFS; Assessor Map 2; Climax-Log; LACCDivPanorama; Wheeler-Logo;



February 2010		
	CWCB Feasibility Report	
	LACC & CECC Diversion Dam Repair	
	Alternative 2	
	Typical Cross Section	
	Job Number 1139.15	Figure 8

R:\11001139\1139_152010_Diversion_Dam_Repair\DRAWINGS\Original Survey\las animas diversion dam 2-01-10 08:53am Scott XREFS: Assessor Map 2, Climax-Logo, LACCDivPanorama, Wheeler-Logo;



February 2010

W. W. Wheeler and Associates, Inc.
Water Resources Engineers

CWCB Feasibility Report
LACC & CECC Diversion Dam Repair
Alternative 3 Plan View

Job Number
1139.15

Figure 9

Appendix A

Articles of Incorporation and Bylaws

of

THE CONSOLIDATED EXTENSION CANAL COMPANY.

KNOW ALL MEN BY THESE PRESENTS, That we, John W. Moore and Charles W. Beach of Bent County, Colorado, and Rufus Phillips of Otero County, Colorado, all citizens of the United States and residents of the State of Colorado, have and hereby do associate ourselves together for the purpose of becoming a body corporate under and in accordance with the laws of the State of Colorado and hereby do make, certify and acknowledge these certificates as provided by the laws of the State of Colorado to-wit:

I.

The name of our corporation shall be THE CONSOLIDATED EXTENSION CANAL COMPANY.

II.

The purpose for which our said corporation is formed is as follows:

To build, construct, maintain and operate an irrigating ditch in Bent County, Colorado, located as follows, to-wit: Beginning at a point on the south bank of The Las Animas Consolidated Canal Company's Canal commonly known as The Jones Ditch, at or near the section line between sections 21 and 22 of Township 23 south of Range 55 west of the 6th P. M., thence running south through the west half of the west half of sections 22, 27 and part of 34, to the west bank of the Las Animas, or Purgatoire River, thence across said river, thence in a northerly direction by the most feasible grade and route through sections 35, 25 and 24 in Township 23 south of Range Fifty Two west, thence through sections 19, 20, 17 and 9 of Township 23 south of Range 51 west to the Arkansas River; and to acquire by purchase, gift or otherwise

tionall necessary rights of way for said ditch; to purchase, own and hold stock in The Las Animas Consolidated Canal Company, and the water rights incident to and going with said stock and all other rights, privileges and priorities appurtenant to the ownership of such stock; to sell such stock or exchange the same for stock in this company, and to provide for the carriage and delivery of the water going with the said stock to lands of stock-holders in this company lying under the line of the ditch above described.

To acquire by purchase, gift or condemnation or other lawful means a right of way on and over the right of way, ditch and headgate of The Las Animas Consolidated Canal Company, ^{with right to enlarge said ditch or headgate} with head-gate located in the south half of section 9 of Township 23 south of Range 53 west in Bent County, Colorado, and ditch running thence in an easterly direction through the south half of sections 9 and 10, the south half of section 11, the North East Quarter of section 14, the north half of section 13, the north west quarter, the south west quarter and the south east quarter of section 18, the north east quarter of section 20, the North Half of section 21, the south west quarter of section 16, the north half of section 22; to divert and appropriate for irrigation and domestic purposes water from the Arkansas River through the head-gate of the said The Las Animas Consolidated Canal Company's Canal, and carry such water so appropriated and diverted over the said ditch and the ditch to be constructed by this company to the lands of its stock-holders; and also to divert, take, appropriate and deliver to lands of the company or its stockholders any surplus, rain seepage or waste water at any time in the ditch of The Las Animas Consolidated Canal Company.

To acquire by gift, purchase, condemnation or other lawful means a right of way over, in and to the right of way, ditch and headgate of The Highland Irrigation District, in Bent County, Colorado, with right to enlarge the headgates and ditches of said irrigation dis-

trict, the head-gate of the ditch of said irrigation district being located at a point on the west bank of the Las Animas or Purgatoire River in Bent County, Colorado, whence the south west corner of section 1 of Township 25 south of range E3 west bears south $38^{\circ} 45'$ west 2396 feet, and the ditch extending thence in a northerly direction as shown on the maps of said district; and also to divert and appropriate for irrigation and domestic purposes water from the Las Animas or Purgatoire River through the head-gate of the said High Land Irrigation District, and to enlarge the ditch or ditches of the said irrigation district, and to carry the water so diverted and appropriated over said ditch and deliver the same to the ditch of this company above described for use of the stockholders of this company or on lands owned by this company; and also to divert, take, appropriate, use and deliver to the lands of this company or the stockholders thereof any surplus, rain, seepage or waste water at any time in the ditch or ditches of the said irrigation district.

To construct reservoirs for the storage of water for use on the lands of this company or its stockholders, and to acquire all necessary and proper rights of way for such reservoirs.

To purchase, rent, own, hold and sell and convey land, water rights and stocks in other companies, and to make all proper deeds or instruments of conveyance; to borrow money and pledge the property and securities of the company, or mortgage the same for the security for such loans, and in general to do any and all things usual, necessary and proper to be done in carrying out the general purpose of constructing, owning, maintaining and operating irrigating ditches and reservoirs.

III.

The amount of the Capital Stock of this corporation shall be One Hundred and Fifty Thousand Dollars (\$150,000.00).

IV.

The term of the existence of this corporation shall Twenty Years.

V.

V.

The said capital stock shall be divided into three thousand (3,000.) shares of the par value of Fifty Dollars (\$50.00) each, and shall be non-assessable, except that the stockholders may at any regular or legally called special meeting levy such assessments as may be necessary to pay the expenses of maintenance, operation and betterment of the said ditch and reservoirs and irrigation business, the interest on any loan or the principal thereof, according to the usual custom of irrigating ditches and reservoirs and the owners thereof.

VI.

The business affairs of this corporation shall be managed by five (5) directors.

VII.

Rufus Phillips, Charles W. Beach, John D. Rhoads, John W. Moore and Donald McIntosh shall be and are hereby appointed directors for the first year and until their successors are elected.

VIII.

The principal office of this company shall be kept at the City of Las Animas in the County of Bent and State of Colorado.

IX.

The principal place of business of this company shall be in Bent County in the State of Colorado, but this company may carry on business in any other county in the State of Colorado.

X.

The board of directors of this company shall have power and are hereby authorized to make such prudential by-laws as they think for the best interest of the company.

IN WITNESS WHEREOF the above named incorporators have hereunto
set their hands and seals to these presents in duplicate this 22nd
day of August A. D. 1910.

Rufus Phillips (Seal).

John W. Moore (Seal).

Charles W. Beach (Seal).

STATE OF COLORADO,)
Otero County,) ss.

I, Cran Walker -

a Notary Public in and for the County of Otero in the State of Colo-
rado, do hereby certify that Rufus Phillips, who is personally known
to me to be the same person whose name is subscribed to the above
and foregoing certificate of incorporation as one of the incorporat-
ors, personally appeared before me this day and acknowledged that
he signed, sealed and delivered the said instrument of writing as his
free and voluntary act for the uses and purposes therein set forth.

Witness my hand and Notarial seal this 23rd day of August

A. D. 1910.

My Commission expires the 17 day of June A. D. 1911.

Cran Walker
Notary Public



STATE OF COLORADO,)
Bent County,) ss.

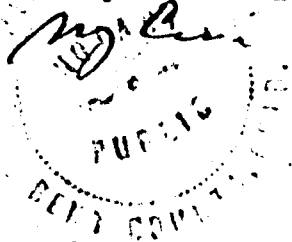
I, Herman Frey

a Notary Public in and for the County of Bent in the State of Colo-
rado, do hereby certify that John W. Moore, whose name is subscribed to
the above and foregoing certificate of incorporation as one of the in-

corporators, personally appeared before me and acknowledged this day that he signed, sealed and delivered the said instrument of writing as his free and voluntary act for the uses therein set forth.

Witness my hand and Notarial Seal this 13th day of Sept August A. D. 1910.

My Commission expires the 23 day of Sept A. D. 1911



Herman Grey

Notary Public

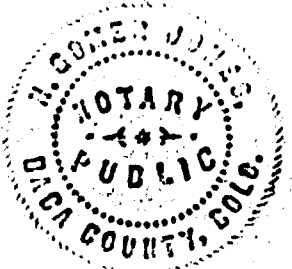
STATE OF COLORADO,)
Broom County,) ss.

I. W. Homer Jones

a Notary Public in and for the County of Broom in the state of Colorado, do hereby certify that Charles W. Beach, whose name is subscribed to the above and foregoing certificate of incorporation as one of the incorporators thereof, and who is personally known to me to be the same person whose name is so subscribed, personally appeared before me this day and acknowledged that he signed, sealed and delivered the said instrument of writing as his free and voluntary act and for the uses therein set forth.

Witness my hand and Notarial Seal this 29th day of August A. D. 1910.

My Commission expires the 19th day of Apr A. D. 1911



W. Homer Jones

Notary Public

51852/24/25

CERTIFICATE OF INCORPORATION

The Connecticut

Between Canal

Company

DOMESTIC

RECEIVED PAYMENT

JUN 16 1911

JAMES B. PEARCE Sec'y of State

[Signature]

JUN 16 1911

Clerk

Recorded by

[Signature]

Date 6-27-11

Compared by

[Signature]

This document has been inspected and properly entered on the Records of the Flat Tax Department

FILED in the office of the Sec'y of the State of Conn. at the City of Hartford, Conn. on the 14th day of June, A. D. 1911, at 10:45 A.M. Recorded in Book 1307, Page 241

JAMES B. PEARCE

[Signature]

Filed CB 6/19/11 Page 290 Murphy Coe

This document has been inspected and properly entered on the Records of the Flat Tax Department.

Date

[Signature] 12-13-68

OK

Clerk

[Signature]

L. E. THOMPSON, PRESIDENT

JOHN MCINTOSH, VICE-PRESIDENT
6030

JOHN W. MOORE, C. SHIER

FIRST NATIONAL BANK

LAS ANIMAS, COLORADO.

February 20th 1915

State of Colorado)
County of Bent) SS

I E.J. Wallinger duly elected and qualified Assessor of Bent County, Colo, do hereby certify that The Consolidated Extension Canal Company's property is not assessed for taxation for either general or special purposes, the same being exempt #2387 2nd Mills Act, Statutes, as the said Ditch is used only and solely for irrigation purposes and there is no water sold therefrom and that the same is a mutual ditch.

All water derived therefrom being evidenced by Capital Stock and said stock is assessed only and solely for the purpose of maintenance improvements and operation and for paying interest on its indebtedness.

Witness my hand and seal 20 day of February A.D. 1915

Einar J. Wallinger
County Assessor of Bent County Colo.

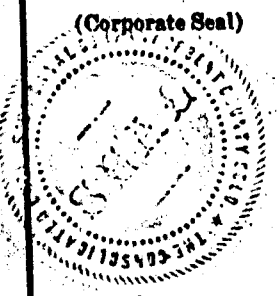
205
9-1-15

Entered on file for
records, 3-5-15
permanently

5286214

The Unincorporated
British Columbia
Lumbermen's Association

FILED in the office of the Secretary of
State of the State of Colorado, on the
3 day of August 1915
A. D. 1915 at 11:30 a.m. 45 M.
Recorded in Book _____ Page _____
JOHN E. RABER,
Secretary of State.
By _____
Filing Clerk _____ Sec. 242



W B Nichols
Secretary

STATE OF COLORADO,
COUNTY OF Bent } ss.

To Whom It May Concern:

This is to certify that at a special meeting of the stockholders of
Consolidated Extension Canal Company
held at Las Animas on the 25th
day of October, A. D. 1923, duly called by the stockholders representing
at least ten per cent (10%) of the entire capital stock of the company, the call being published
for ^{Two} ~~four~~ weeks in the Bent County Democrat
a newspaper published at Las Animas, State
of Colorado, and notice of said meeting having been mailed to each stock-
holder thirty (30) days prior to this date, there being represented at such meeting 768 1/4
shares of the capital stock of said company out of a total of 1279 1/4 shares outstanding.

That at said meeting a resolution was passed to have extended the corporate existence of this
said company for a period of twenty (20) years, from and after the date of the expiration of its
corporate life, the same being the 14th day of October, A. D.
1923, the resolution receiving a majority vote of all the outstanding stock of the company.
The president and secretary were authorized to certify this resolution under the corporate seal
of the company, to send such certificate to the Secretary of State of the State of Colorado, to
file duplicate certificates under seal of the company in the office of the recorder of Deeds of the
count. Y. of Bent, State of Colorado,
and in pursuance of such resolution, we do hereby certify the same under the seal of the company.

Arthur C. Horn
President

Attest:

W B Nichols
Secretary

(Corporate Seal)



No. **92571** C. K.

CERTIFICATE OF RENEWAL

OF THE

CERTIFICATE OF INCORPORATION

OF

Consolidated Extension

Canal Company

DOMESTIC

RECORDED

BOOK 324 PAGE 49

FILED in the _____ of the Secretary of
State, of the State of Colorado, of the
County of _____
A.D. 1925, at _____
CHAS. M. A. BONG
By _____
Filing Clerk

8-52-16

This document has been inspected
and found to be correct on the re-
cords of the Flat Tax Department.

Date Oct. 20, 1930

M. B. H. H. Clerk

OK
1/1

This document has been inspected
and properly entered on the Re-
cords of The Flat Tax Department.

OK

Date

April 12, 1931
W. B. H. H. Clerk



To Whom It May Concern:

This is to certify that a special meeting of the stockholders of The Consolidated
Extension Canal Company

a Colorado corporation, was held at Las Animas, Colo on the 28th day of
September, A. D. 1951, such meeting having been called by the stockholders

representing at least 10 per cent (10%) of the entire capital stock of the company outstanding. Notice
for two successive weeks
of such meeting as provided by law, was published ~~at least ten days prior to the date fixed for said meeting in a newspaper printed at Las Animas~~

~~at least ten days prior to the date fixed for said meeting in a newspaper printed at Las Animas~~

State of Colorado, and notice of said meeting was delivered personally or mailed to each stockholder

at least thirty (30) days prior to the date of such meeting, there being represented at such meeting

677 shares of the capital stock of said company out of a total of 1233.25 shares outstanding.

At said meeting a resolution was passed to extend the corporate existence of the said corporation

perpetually from and after the date of the expiration of its corporate life,

the resolution received a MAJORITY vote of all the outstanding stock of the corporation. The presi-

dent and secretary were authorized and directed to file under the corporate seal of the company, a

certificate of renewal with the Secretary of State of Colorado, and to file a duplicate certificate in

the office of the Recorder of Deeds in each county wherein the company may do business in the

State of Colorado.

Marshall S. Dean

President

(Corporate Seal)



Marshall S. Dean

Secretary

*Corporate existence may be renewed perpetually or for any specified number of years.

*Such certificate of renewal shall be filed before or within one year after the expiration of the term.

*The fee for filing certificate of renewal is \$25.00 for \$25,000 or less and twenty cents for each additional \$10,000 of authorized capital stock.

120741

**CERTIFICATE OF RENEWAL
OF THE
CERTIFICATE OF INCORPORATION**

OF

THE CONSOLIDATED EXTENSION CANAL COMPANY

DOMESTIC

RECORDED

BOOK 605 PAGE 387

FILED in the office of the Secretary of
State, of the State of Colorado, on the

2 day of October
A.D. 1951, at 2:10 o'clock P.M.

GEORGE J. BAKER,

Secretary of State

Filing Clerk

CO's And Pension Fund

— (C) V 20064 1402-100

This document has been inspected
and properly entered on the re-
cords of The Flat Tax Department.

Date October 3, 1951 m.w. **OK**

Lantz Clerk

This document has been inspected
and properly entered on the Re-
cords of The Flat Tax Department.

OK

Date April 17, 1968
Boacerge Clerk

**BYLAWS
OF
The Consolidated Extension Canal Company**

(a Colorado Mutual Ditch Company)

ARTICLE I. IDENTIFICATION

Section 1.01 The principal office of the Company shall be Denver, Colorado.

Section 1.02 The purpose of the Company shall be as stated in the Articles of Incorporation and any amendments thereto, filed with the Colorado Secretary of State.

ARTICLE II. SHAREHOLDERS

Section 2.01 Annual Meeting. The annual meeting of the shareholders of the Company shall be in such place as the Board of Directors may designate, during the last two weeks of January or first two weeks of February, each year on the date and at the time set by a resolution of the Board of Directors for the purpose of electing the Board of Directors and for the transaction of any other business which may properly come before it.

Section 2.02 Special Meeting. Special meetings of the shareholders may be called at any time by the Board of Directors or upon the written demand of shareholders representing at least 25% of the votes entitled to be cast on any issue to be considered at a special meeting of the shareholders.

Section 2.03 Notice of Meeting. Notice of all shareholders' meetings shall be given by the Secretary of the Company not more than thirty (30) days and not less than ten (10) days prior to the meeting by mailing notice of the meeting's date, time, place and purpose (in the case of special meetings) to the last known address of each shareholder as it appears in the records of the Company.

Section 2.04 Action without a Meeting. Any action required or permitted to be taken at a shareholders' meeting may be taken without a meeting by obtaining the unanimous written consent of all shareholders.

Section 2.05 Quorum. A quorum for the transaction of business at any meeting of the shareholders shall consist of those shareholders holding a majority of all issued and outstanding shares of the Company.

Section 2.06 Voting. At any shareholders' meeting, each shareholder shall be entitled to cast one vote for each share of stock of which he/she is the owner of record as of the record date for any shareholders' meeting. Votes may be cast in person or by proxy. Each proxy shall be in writing, signed by the shareholder and delivered to the Secretary of the Company.

Section 2.07 Record Date. For the purpose of determining the shareholders entitled to vote at any meeting of the shareholders, determining shareholders entitled to notice of the meeting, or in order to make a determination of shareholders for any other purpose, the record date for any such determination of shareholders, such date, in any case, shall be fifteen (15) days prior to the meeting date or action requiring a determination of the shareholders.

ARTICLE III. BOARD OF DIRECTORS

Section 3.01 Powers; Duties. The affairs of the Company shall be managed by its Board of Directors. The Board of Directors shall have the power to estimate, make and levy assessments against the shareholders of the Company, at the annual meeting of the Board of Directors and at such other times as the Board of Directors determines to be appropriate. The Board of Directors shall have the power to make and adopt such rules and regulations consistent with applicable law, the Articles of Incorporation or these Bylaws, as it may deem desirable for the management of the business and affairs of the Company. The Board of Directors shall hear and determine complaints of shareholders regarding non-service or improper service of water distribution.

Section 3.02 Directors. The Board of Directors shall consist of five directors and shall be elected at each annual meeting of the shareholders by cumulative vote.

Section 3.03 Eligibility; Term. No person shall be eligible for election to the Board of Directors unless at the time of election, he/she is a bona fide shareholder of the Company or an employee or designated representative of a shareholder of the Company. Members of the Board of Directors shall serve for a term of one (1) year from the date of election and until his/her successor is duly elected and qualified.

Section 3.04 Vacancies. In the case of any vacancy that will occur at a specific later date by reason of a resignation effective at a later date, the resigning Director shall appoint a successor Director to fill such vacancy for the unexpired portion of the term of the directorship which shall become vacant, so long as the successor Director is a Stockholder in this Company or an employee or designated representative of a Stockholder of this Company. Notwithstanding the foregoing, in the case of any vacancy created by the death or disqualification of a Director who is also an employee or designated representative of a Stockholder of this Company, such Stockholder shall appoint a successor Director to fill such vacancy for the unexpired portion of the term of the directorship so vacated. Furthermore, in the case of a vacancy created by the death or disqualification of a Director who is not an employee or designated representative of a Stockholder in this Company or in the case of a vacancy arising from the creation of a new directorship, the other Directors, by affirmative vote of a majority thereof, must fill such vacancy for the unexpired portion of the term of directorship which is vacant, and until election of and qualification of a successor Director.

Section 3.05 Annual and Regular Meetings. The annual meeting of the Board of Directors shall be held immediately after the annual meeting of the shareholders or such other date and time as the Board of Directors may designate. Regular meetings of the Board of Directors shall be held at such place and at such times as the Board of Directors may, from time to time, require.

Section 3.06 Special Meetings. Special meetings of the Board of Directors may be called by the President or upon the written request of at least a majority of the directors.

Section 3.07 Notice. Notice of all meetings of the Board of Directors, other than the annual meeting, shall be given by the Secretary to each director, in writing, at least twenty-four (24) hours before the time fixed for the meeting, and such notice shall advise each director as to the time, place, day and general purpose of the meeting and shall be delivered personally, or by telephone, telefax or email transmission, or mailed, postage prepaid to each director at his last known address as it appears in the records of the Company. Any director may waive, in writing, any notice of a meeting required to be given by these Bylaws. The attendance of a director at any meeting shall constitute a waiver of notice of such meeting by such director, except in a case where a director shall attend a meeting for the express purpose of objecting to the transaction of any business on the ground that the meeting has not been lawfully called or convened

Section 3.08 Action without a Meeting. The Board of Directors shall have the right to take any action without holding a formal meeting by obtaining the unanimous written consent of all directors.

Section 3.09 Quorum. A quorum for the transaction of business at any meeting of the directors shall consist of a majority of the Board of Directors then serving.

ARTICLE IV. OFFICERS

Section 4.01 Officers. The officers of the Company shall be a President, Vice President, Secretary and Treasurer, who shall be elected by the Board of Directors and shall hold office for one year and until their successors are duly elected and qualified, unless he/she resigns or is sooner removed from office. Any officer may also serve as a director of the Company. The Board of Directors may appoint such other officers as shall be necessary and shall prescribe the duties of such additional officers.

Section 4.02 Vacancies. In the case of any vacancy that will occur at a specific later date by reason of a resignation effective at a later date, the resigning officer shall appoint a successor officer to fill such vacancy for the unexpired portion of the term of the office which shall become vacant, so long as the successor officer is a Director of this Company and either a Stockholder in this Company or an employee or designated representative of a Stockholder of this Company. Notwithstanding the foregoing, in case of any vacancy among the officers through death, or disqualification, the Board of Directors, by affirmative vote of a majority thereof, must fill such vacancy for the unexpired portion of the term of office, which is vacant, and until election of and qualification of a successor officer.

Section 4.03 President. The President shall perform the functions of the chief executive officer, and shall exercise general supervision over the Company's property and affairs. He/she shall sign on behalf of the Company all agreements and contracts of material importance to the Company's business and shall do and perform all acts and things which the Board of Directors may require of him/her. The President, if a Director, may also serve as Chairman of the Board of Directors, unless the Board elects a separate Chairman.

Section 4.04 Vice President. In the event of the President's absence or inability to act, the Vice-President shall have the powers of the President. He/she shall perform such other duties as the Board of Directors may impose upon him/her.

Section 4.05 Secretary. The Secretary shall keep: (a) the minutes of the Company; and (b) such other books and records as these Bylaws or any resolution of the directors may require, or as required by law. All such records shall be in written form. He/she shall perform such other services as the Board of Directors may fix or approve. An Assistant Secretary may, at the discretion of the Board of Directors, be elected, such Assistant Secretary, in the event of the Secretary's absence or inability to act, may perform the duties and functions of the Secretary.

Section 4.06 Treasurer. The Treasurer shall have the custody and control of the funds of the Company, subject to the action of the Board of Directors, and shall, when requested by the President to do so, report the state of the finances of the Company at any meeting of the directors. He/she shall perform such other services as the Board of Directors may require of him/her. An Assistant Treasurer may, at the discretion of the Board of Directors, be elected, such Assistant Treasurer, in the event of the Treasurer's absence or inability to act, may perform the duties and functions of the Treasurer. All checks, drafts and orders for payment of money shall be signed by the Treasurer or Assistant Treasurer, unless otherwise ordered by the Board of Directors.

Section 4.07 Multiple Offices. One person may simultaneously hold more than one office, including any additional offices created by the Board of Directors.

ARTICLE V. INDEMNIFICATION

Section 5.01 Indemnification. The Company, in accordance with C.R.S. 7-129-101, et seq., shall indemnify and save harmless all of its existing and former officers and directors from and against all expenses incurred by them, including, but not limited to, legal fees, judgments, penalties, and amounts paid in settlement or compromise, to the fullest extent not prohibited by law, as it now exists or may hereafter be amended, in connection with any proceeding, actual or threatened, to which they may be made a party by reason of their service to or at the request of the Company, including service in their capacity as officers, unless it is established that: (i) the act or omission of the indemnified party was committed in bad faith; (ii) the indemnified party did not believe such act or omission to be in, or not opposed to, the best interests of the Company; (iii) in the case of any criminal proceeding, the indemnified party had reasonable cause to believe that the act or omission was unlawful; or (iv) the indemnified party is adjudged to be liable to the Company, unless a court of competent jurisdiction determines that such person is entitled to indemnity. The Company shall advance to any director or officer seeking indemnification pursuant to this Section expenses, including attorneys' fees, actually and reasonably incurred in defending any civil or criminal action, suit or proceeding in advance of any final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the director or officer seeking indemnification to repay such amount if it is ultimately determined that he/she is not entitled to be indemnified by the Company. If the Company is requested to indemnify an existing or former director or officer in connection with any threatened, pending or completed action or suit by or in the right of the Company to procure judgment in its favor by reason of the fact that such person was a director, officer, or employee or agent of the Company, or is or was serving at the request of the Company in such capacity, the

Company shall indemnify such person against expenses, including attorneys' fees, but excluding judgments and fines, and for amounts paid in settlement, actually and reasonably incurred by him/her in connection with the defense or settlement of such action or suit, if such person acted, or failed to act, in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the Company, except that no indemnification shall be made in respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the Company, unless and only to the extent that a court in which such action or suit was brought shall determine, upon application, that despite the adjudication of liability, but in view of all circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the court shall deem to be proper.

Section 5.02 Determination by the Board of Directors. Whenever any existing or former director or officer shall report to the President that he has incurred or may incur expenses described in Section 5.01 of this Article V, the Board of Directors (other than any interested director) shall, at its next regular meeting or at a special meeting held within a reasonable time thereafter, determine whether, in regard to the matter involved, the person in question is entitled to indemnification pursuant to Section 5.01 of this Article V. If the Board determines that the standards of Section 5.01 of this Article are met, indemnification shall be made. If the Board of Directors refuses to indemnify a person who is determined by a court of competent jurisdiction to be entitled to indemnification under Section 5.01 of this Article or applicable law, the Company shall, in addition to extending such indemnification, advance to any person entitled to indemnification and all costs of defense upon receipt of a written undertaking by such person that such amounts will be repaid if it is determined that such person is not entitled to indemnification as a matter of law. The Company shall have the right to refuse indemnification in any instance in which the person to whom indemnification would otherwise have been extended, if he/she unreasonably refuses to cooperate in the investigation or defense of such matter or to permit the Company, at its own expense, to retain counsel of its own choosing to defend him.

ARTICLE VI. STOCK CERTIFICATES

Section 6.01 Form of Certificates. Certificates representing the capital stock of the Company shall be on such forms as shall be prepared and approved by the President and the Secretary. Each stock certificate shall be signed by the President and the Secretary and shall state on its face, the certificate number, date of issuance, number of shares and the person to whom it is issued.

Section 6.02 Lost, Stolen or Destroyed Stock Certificates. The Company shall issue a new certificate in place of any certificate theretofore issued where the holder of record of the certificate: (a) makes proof in affidavit form that the certificate has been lost, destroyed or wrongfully taken; (b) requests the issuance of a new certificate before the Company has notice that the certificate has been acquired by a purchaser for value in good faith and without notice of any adverse claim; (c) gives a bond in such amount and with such surety as the Company may direct, to indemnify the Company against any claim that may be made on account of the alleged loss, destruction or theft of the certificate or executes an indemnity agreement, in form and substance satisfactory to the Company, that protects the Company against any losses arising out of any claim that may be made on account of the alleged loss, destruction or theft of the certificate; and (d) satisfies any other reasonable requirement imposed by the Company. When a

certificate has been lost, apparently destroyed or wrongfully taken and the holder of record fails to notify the Company within a reasonable time after he/she has actual or constructive knowledge of it, and the Company registers a transfer of the shares represented by the certificate before receiving such notification, the holder of record shall be precluded from making any claim against the Company for the transfer or a new certificate.

ARTICLE VII. MISCELLANEOUS

Section 7.01 Power to Shut Off Water; Declare Forfeiture. The Board of Directors shall have the power thirty (30) days after the due date of any assessment, to close the headgate of any water user that is delinquent in payment of any assessment. The Board of Directors is empowered to declare a forfeiture, and sale or forfeiture without sale, of stock for any unpaid assessment, which may at any time be or becomes due thereon, said forfeiture to be made in accordance with the applicable statutes of the State of Colorado. It is hereby made the duty of the Secretary to sell and dispose of any forfeited capital stock at a sale to company shareholders or other third-parties at such time and place as and when the directors may determine, thirty days notice of such sale having been given by advertisement in a daily or weekly newspaper published in Bent County, Colorado, and demand for the amount due thereon having been made either in person or by written notice duly mailed to the last known address of the owner or holder of such stock, at least thirty days prior to such sale. Forfeited stock may be retained and not sold when in the judgment of the Board of Directors it is in the best interests of the Company and other shareholders to retain it.

Section 7.02 Private Laterals. Maintenance of private laterals in good condition is the responsibility of the lateral owner. The Company has the right to shut off water to any lateral if the lateral is causing injury to the property of others due to the failure to maintain the lateral in good condition.

Section 7.03 Expenses and Maintenance. For the purpose of defraying the expenses of the Company, of any kind whatsoever, and of paying the costs of maintenance, management, construction, operation, repair and such indebtedness as it may legally incur, the Board of Directors may raise the money or revenue required by assessing shares of capital stock of the Company.

Section 7.04 Assessments. All assessments shall be apportioned equally among all the shares of stock issued by the Company. The assessments shall be payable to the Company and mailed or delivered to the attention of the Secretary at the principal office of the Company. Assessments shall be due in such installments and at such times as specified by the Board of Directors in the notice of assessment, resolution of Board of Directors or other form of notice. Assessments shall become delinquent thirty (30) days after the designated due date for each assessment. All delinquent assessments shall bear interest at the rate of one percent per month or fraction thereof from the due date thereof, and nothing herein contained shall be construed to prevent the Company from maintaining an action against any shareholder, in any court having jurisdiction, to collect delinquent assessments and interest thereon. The Company shall have a lien upon capital stock for delinquent assessments. All remedies herein provided for the collection of delinquent assessments upon capital stock of this Company shall be cumulative and

the exercise of one or more of such remedies shall not prevent the Board of Directors from invoking the other or others for the collection of such assessments.

Section 7.05 Measuring and Regulating the Water Supply. The manner of delivering, measuring and regulating the supply of water to shareholders, shall be under the control of the Board of Directors, which may make rules and regulations regarding the distribution and delivery of water.

Section 7.06 Repair of Canal. The Company may shut off the water for purposes of general or special repairs of canals, flumes and gates or other portion of said irrigation system and for any other purpose incidental to the conduct of its business at such times as may be required and shall restore water as soon as practicable.

Section 7.07 Fiscal Year. The fiscal year of the Company shall be the year ending December 31.

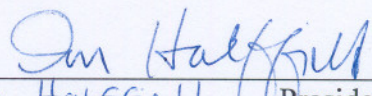
Section 7.08 Conflicts of Interest. The Company shall comply with Section 7-128-501 of the laws of the State of Colorado to the extent applicable.

Section 7.09 Staff. The Board of Directors shall assure that professional staff is available as needed to accomplish the purposes and activities of the Company. Staff may be hired by the Board.

ARTICLE VIII. AMENDMENT AND REPEAL

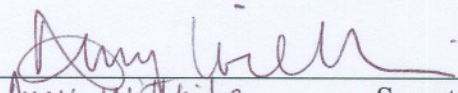
Section 8.01 These Bylaws may be altered, modified or added to, or repealed in whole or in part, at any regular Board meeting, at any annual meeting of the Stockholders, and Board of Directors, or at a Special Meeting of the Stockholders and Board of Directors called for that purpose pursuant to Article II Section 2.02 of these Bylaws, at which meeting there must be present in person or by proper written and signed proxies at least a majority of the outstanding stock of this Company. Stock represented at any meeting against which there are any unpaid assessments shall not be counted in determining such majority.

I hereby certify that the foregoing Bylaws were duly adopted by the Shareholders of the Company as of February, 6, 2009.



Don Halffield President

ATTEST:



Amy White, Secretary

Appendix B

List of Stockholders and Lessees

Consolidated Extension Canal Company Stock Ownership and Lessees	
Stockholders	No. of Shares
Harrell Ridley 26960 Hwy 101 Las Animas, CO 81054	77.5
Loyal Stephens 107 E. 6th Las Animas, CO 81054	20
Loyde Gardner 12251 County Road EE Las Animas, CO 81054	305.5
Robert West 27604 County Road 13 Las Animas, CO 81054	15
Mary and Cheryl Baker 12440 County Road 5/10 Las Animas, CO 81054	16
Lower Arkansas Valley Water Conservation District 810 Swink Rocky Ford, CO 81067	11
U.S. Corps of Engineers c/o Jerry Miller 13231 East Highway 50 Las Animas, CO 81054	128
Xcel Energy Attn: Don Halffield 4653 Table Mtn Dr Golden, CO 80403	660.25
Total Shares of Stockholders =	1233.25
Total Shareholders =	8
Lessees of Xcel Energy Stock	No. of Shares
Harrell Ridley 12799 EE Road Las Animas, Colo. 81054	194
Samuel W. Cook 26603 Highway 101 Las Animas, Colo. 81054	45.75
William E. Cunningham 12325 Road DD.5 Las Animas, Colo. 81054	30
Jerry Miller 13231 U.S. Highway 50 Las Animas, Colo. 81054	65
Loyde Gardner 12251 Road EE Las Animas, Colo. 81054	72.5
Larry Gardner 13251 County Road EE Las Animas, Colo. 81054	45
Caroline I. Morlan 13956 Rd. EE.5 Las Animas, Colo. 81054	61
Charles Snow 10606 Road EE Las Animas, Colo. 81054	30
Frances Smith 12322 Road DD Las Animas, Colo. 81054	105

Roy Smith	12
13760 Road EE	
Las Animas, Colo. 81054	
Total Shares Leased =	660.25
Number of Lessees =	10

Appendix C

Financial Reports for 2007, 2008, and 2009

The Consolidated Extension Canal Company Balance Sheet

As of December 31, 2009, As of January 26, 2010

	<u>December 31, 2008</u>	<u>December 31, 2009</u>	<u>YTD 1/26/2010</u>
ASSETS			
Current Assets			
Checking/Savings			
First National Bank Chkg - CECC	8,716.92	14,582.16	12,658.59
Wells Fargo Business Market	1,518.57	1,519.35	1,519.35
Total Checking/Savings	<u>10,235.49</u>	<u>16,101.51</u>	<u>14,177.94</u>
Total Current Assets	10,235.49	16,101.51	14,177.94
Fixed Assets			
Capital Stock*	50,000.00	50,000.00	50,000.00
Siphon Repair	300,000.00	300,000.00	300,000.00
Total Fixed Assets	<u>350,000.00</u>	<u>350,000.00</u>	<u>300,000.00</u>
TOTAL ASSETS	<u><u>360,235.49</u></u>	<u><u>366,101.51</u></u>	<u><u>314,177.94</u></u>
LIABILITIES & EQUITY			
Liabilities			
Payroll Liabilities			
CO State Tax			11.00
FEDERAL PAYROLL TAX	20.00	20.00	20.00
FEDERAL UNEMPLOYMENT	1.81	1.81	1.81
MEDICARE (Company)	21.34	21.34	21.34
MEDICARE (Employee)	21.34	21.34	21.34
Other	0.02	0.02	0.02
SOCIAL SECURITY (Company)	91.22	91.22	91.22
SOCIAL SECURITY (Employee)	91.22	91.22	91.22
Payroll Liabilities - Other	-0.02	-0.01	-0.01
Total Payroll Liabilities	<u>246.93</u>	<u>246.94</u>	<u>257.94</u>
Total Current Liabilities	<u>246.93</u>	<u>246.94</u>	<u>257.94</u>
Total Liabilities	246.93	246.94	257.94
Equity			
Opening Bal Equity	528,702.56	528,702.56	528,702.56
Retained Earnings	-166,159.53	-168,714.00	-162,847.99
Net Income	-2,554.47	5,866.01	-1,934.57
Total Equity	<u>359,988.56</u>	<u>365,854.57</u>	<u>363,920.00</u>
TOTAL LIABILITIES & EQUITY	<u><u>360,235.49</u></u>	<u><u>366,101.51</u></u>	<u><u>364,177.94</u></u>

* Capital stock - estimate of par value

The Consolidated Extension Canal Company

Statement of Cash Flows

January through December 2009, January 1-26, 2010

	<u>Jan - Dec 08</u>	<u>Jan - Dec 09</u>	<u>Jan 1-25, 2010</u>
OPERATING ACTIVITIES			
Net Income	-1,934.57	5,866.01	-1,934.57
Adjustments to reconcile Net Income to net cash provided by operations:			
Payroll Liabilities	<u>11.00</u>	<u>0.01</u>	<u>11.00</u>
Net cash provided by Operating Activities	<u>-1,934.57</u>	<u>5,866.02</u>	<u>-1,923.57</u>
	-1,934.57	5,866.02	-1,923.57
	<u>16,101.51</u>	<u>10,235.49</u>	<u>16,101.51</u>
Cash at end of period	<u><u>14,177.94</u></u>	<u><u>16,101.51</u></u>	<u><u>14,177.94</u></u>

The Consolidated Extension Canal Company
Profit Loss Budget vs. Actual
January through December 2009, Operations Budget for 2010

		2009	2010
	<u>Jan - Dec 09</u>	<u>Budget</u>	<u>Budget</u>
Ordinary Income/Expense			
Income			
Federal Payroll Tax Refund	4.58	0.00	0.00
Interest	64.24	115.00	55.00
Miscellaneous Receipts	422.00	0.00	0.00
Water Assessments	49,330.00	49,330.00	45,630.25
Total Income	<u>49,820.82</u>	<u>49,445.00</u>	<u>45,685.25</u>
Expense			
*Payroll Expenses	17,265.54	17,026.93	17,367.47
Accountant Services	300.00	500.00	500.00
Ditch Repairs & Maintenance	7,630.78	8,000.00	8,000.00
Fuel Allowance	5,250.00	5,400.00	5,400.00
Insurance	2,784.00	4,000.00	3,250.00
LEASE	105.09	125.00	125.00
Miscellaneous	741.37	350.00	400.00
Reconciliation Discrepancies	-19.00	0.00	0.00
Telephone	865.37	690.00	800.00
Water Assessment paid to LACC	9,031.66	9,031.66	9,031.66
Total Expense	<u>43,954.81</u>	<u>45,123.59</u>	<u>44,874.13</u>
Net Income	<u><u>5,866.01</u></u>	<u><u>4,321.41</u></u>	<u><u>811.12</u></u>

The Consolidated Extension Canal Company

Profit Loss

January through December 2008, 2009, YTD 2010

	<u>Jan- Dec 2008</u>	<u>Jan - Dec 09</u>	<u>Jan 1 - 26, 2010</u>
Income			
Federal Payroll Tax Refund	56.49	4.58	0.00
Interest	109.63	64.24	0.00
Miscellaneous Receipts	227.00	422.00	0.00
Water Assessments	<u>39,464.00</u>	<u>49,330.00</u>	<u>0.00</u>
Total Income	<u>39,857.12</u>	<u>49,820.82</u>	<u>0.00</u>
Expense			
*Payroll Expenses	16,666.06	17,265.54	1,380.93
Accountant Services	0.00	300.00	0.00
Ditch Repairs & Maintenance	8,019.28	7,630.78	0.00
Fuel Allowance	3,600.00	5,250.00	300.00
Insurance	3,837.00	2,784.00	0.00
LEASE	105.09	105.09	0.00
Miscellaneous	367.58	741.37	0.00
Reconciliation Discrepancies	0.00	-19.00	0.00
Telephone	784.91	865.37	63.13
Water Assessment paid to LA	<u>9,031.66</u>	<u>9,031.66</u>	<u>0.00</u>
Total Expense	<u>42,411.58</u>	<u>43,954.81</u>	<u>1,744.06</u>
Net Income	<u><u>-2,554.46</u></u>	<u><u>5,866.01</u></u>	<u><u>-1,744.06</u></u>

Appendix D

Opinions of Alternative Project Costs

Phase 1 Budget Estimate					
Alternative 1 - Concrete Buttress Repair of the LACC and CECC Diversion Dam					
Item	Item Description	Unit	Quantity	Price	Total Cost
1	Mobilization (~10% of Construction Subtotal)	Lump Sum	1	\$52,156	\$52,156
2	Clearing and Grubbing	Lump Sum	1	\$4,200	\$4,200
3	Temporary Diversion	Lump Sum	1	\$15,000	\$15,000
4	Demolition of 80 feet of walkway	Lump Sum	1	\$3,500	\$3,500
5	Excavation	C.Y.	850	\$28	\$23,800
6	Dewatering	wks	6	\$7,500	\$45,000
7	Slab Concrete	C.Y.	512	\$380	\$194,560
7	New Facing Wall	C.Y.	220	\$500	\$110,000
8	Construct Buttress Walls	each	8	\$12,000	\$96,000
9	Inspect Dewatered Gates	Lump Sum	1	\$3,000	\$3,000
10	Geotechnical Investigations	Lump Sum	1	\$20,000	\$20,000
11	Demobilization and Site Clean-up	Lump Sum	1	\$6,500	\$6,500
	Subtotal				\$573,716
	Unscheduled Items (10%)				\$57,372
	Contingency for Change Orders (20%)				\$114,743
	Engineering	Lump Sum	1	\$35,000	\$35,000
	Access Easements	Lump Sum	1	\$35,000	\$35,000
					\$815,831

Phase 2 Budget Estimate					
Alternative 1 - Concrete Buttress Repair of the LACC and CECC Diversion Dam					
Item	Item Description	Unit	Quantity	Price	Total Cost
1	Mobilization (~10% of Construction Subtotal)	Lump Sum	1	\$84,485	\$84,485
2	Temporary Diversion	Lump Sum	1	\$3,000	\$3,000
3	Demolition of remaining walkway	Lump Sum	1	\$7,000	\$7,000
4	Excavation	C.Y.	1800	\$28	\$50,400
5	Dewatering	wks	16	\$6,600	\$105,600
6	Slab Concrete	C.Y.	770	\$380	\$292,600
7	New facing Wall	C.Y.	330	\$500	\$165,000
8	Construct Downstream Concrete Buttress	each	12	\$12,000	\$144,000
9	Construct New Crest Wall	C.Y.	60	\$600	\$36,000
10	Emergency Spillway Section	C.Y.	20	\$500	\$10,000
11	Emergency Spillway riprap	C.Y.	75	\$110	\$8,250
12	Repair Diversion Gates	Lump Sum	1	\$16,500	\$16,500
13	Demobilization and Site Clean-up	Lump Sum	1	\$6,500	\$6,500
	Subtotal				\$929,335
	Unscheduled Items (10%)				\$92,934
	Contingency for Change Orders (20%)				\$185,867
	Engineering	Lump Sum	1	\$75,000	\$75,000
					\$1,283,136

SUMMARY

Phase 1 Budget \$815,831

Phase 2 Budget \$1,283,136

Total Project Budget \$2,098,966

Phase 1 Budget Estimate					
Repair of the LACC and CECC Diversion Dam					
Alternative 2 - Riprap Buttress Repair of the LACC and CECC Diversion Dam					
Item	Item Description	Unit	Quantity	Price	Total Cost
1	Mobilization (~10% of Construction Subtotal)	Lump Sum	1	\$36,820	\$36,820
2	Clearing and Grubbing	Lump Sum	1	\$4,200	\$4,200
3	Temporary Diversion	Lump Sum	1	\$15,000	\$15,000
4	Demolition of 80 feet of walkway	Lump Sum	1	\$3,500	\$3,500
5	Grouted Riprap	C.Y.	1200	\$210	\$252,000
6	Downstream Concrete Cut-off Wall	C.Y.	150	\$560	\$84,000
7	Inspect Dewatered Gates	Lump Sum	1	\$3,000	\$3,000
8	Demobilization and Site Clean-up	Lump Sum	1	\$6,500	\$6,500
	Subtotal				\$405,020
	Unscheduled Items (10%)				\$40,502
	Contingency for Change Orders (20%)				\$81,004
	Engineering	Lump Sum	1	\$35,000	\$35,000
	Access Easements	Lump Sum	1	\$35,000	\$35,000
					\$596,526

Phase 2 Budget Estimate					
Repair of the LACC and CECC Diversion Dam					
Alternative 2 - Riprap Buttress Repair of the LACC and CECC Diversion Dam					
Item	Item Description	Unit	Quantity	Price	Total Cost
1	Mobilization (~10% of Construction Subtotal)	Lump Sum	1	\$34,525	\$34,525
2	Temporary Diversion	Lump Sum	1	\$3,000	\$3,000
3	Demolition of remaining walkway	Lump Sum	1	\$7,000	\$7,000
6	Grouted Riprap	C.Y.	1400	\$210	\$294,000
8	Emergency Spillway Section	C.Y.	20	\$500	\$10,000
9	Emergency Spillway Riprap	C.Y.	75	\$110	\$8,250
10	Repair Diversion Gates	Lump Sum	1	\$16,500	\$16,500
11	Demobilization and Site Clean-up	Lump Sum	1	\$6,500	\$6,500
	Subtotal				\$379,775
	Unscheduled Items (10%)				\$37,978
	Contingency for Change Orders (20%)				\$75,955
	Engineering	Lump Sum	1	\$75,000	\$75,000
					\$568,708

SUMMARY

Phase 1 Budget \$596,526

Phase 2 Budget \$568,708

Total Project Budget \$1,165,234

Phase 1 Budget Estimate					
Repair of the LACC and CECC Diversion Dam					
Alternative 3 - RCC Buttress Repair of the LACC and CECC Diversion Dam					
Item	Item Description	Unit	Quantity	Price	Total Cost
1	Mobilization (~12% of Construction Subtotal)	Lump Sum	1	\$90,294	\$90,294
2	Clearing and Grubbing	Lump Sum	1	\$4,200	\$4,200
3	Temporary Diversion	Lump Sum	1	\$15,000	\$15,000
4	Demolition of 80 feet of walkway	Lump Sum	1	\$3,500	\$3,500
5	Dewatering	wks	6	\$7,500	\$45,000
6	Excavation	C.Y.	4600	\$8	\$34,500
7	RCC	C.Y.	4300	\$120	\$516,000
8	Concrete Crest Wall	C.Y.	180	\$500	\$90,000
9	Inspect Dewatered Gates	Lump Sum	1	\$3,000	\$3,000
10	Repair Diversion Gates	Lump Sum	1	\$16,500	\$16,500
11	Emergency Spillway Concrete Wall	C.Y.	20	\$500	\$10,000
12	Emergency Spillway Riprap	C.Y.	75	\$110	\$8,250
13	Demobilization and Site Clean-up	Lump Sum	1	\$6,500	\$6,500
	Subtotal				\$842,744
	Unscheduled Items (10%)				\$84,274
	Contingency for Change Orders (20%)				\$168,549
	Engineering	Lump Sum	1	\$135,000	\$135,000
	Access Easements	Lump Sum	1	\$35,000	\$35,000
					\$1,265,567

BUDGET RECOMMENDATION

\$1,275,000

Appendix E

Financial Plan

APPENDIX E

Consolidated Extension Canal Company Financial Repayment Schedule

Financing							Total Cost All Projects: \$1,275,000			Project Cost Sharing			Miscellaneous Information					
Source	Project Total	Loan Share	Principal	Interest	Years	Annual Payment				Source	Amount	% Total						
CWCB Loan	\$1,275,000	14.0%	\$178,500	2.75%	30	\$8,815				Xcel Payment - Cash	\$1,020,000	80.00%						
										LACC - CWCB Loan	\$76,500	6.00%	Annual Inflation Rate for Op Assess, Other Inc and Exps:					
										CECC - CWCB Loan	\$178,500	14.00%	Annual Interest Income Rate for Reserve Fund:					
										Number of Stock Shares Outstanding:						1,233.25		

	ANNUAL INCOME										ANNUAL EXPENDITURES							RESERVES AND CASH	
Year	Annual Oper Assessment Per Share	Number of Shares	Annual Oper Assessment Revenue	Number of non-Xcel Shares	Special Assessment Per Share	Special Assessment Revenue	Other Income	Interest On Reserve Fund	Total Annual Assessment Per Share	Total Income	Normal O & M Expense	Extra-ordinary O & M Expense	Dam Rehabilitation Annual Pmt CWCB Loan	0.00% Payment Match	Reserve Fund Expense (1)	Total Expenditures	Reserve Fund Balance (2)	Cash Balance	
																	\$0	\$16,102	
2010	\$37.00	1,233.25	\$45,630	573	\$15.39	\$8,818	\$0	\$18	\$52	\$54,466	\$43,955	\$0	\$8,815	\$0	\$882	\$53,652	\$882	\$16,917	
2011	\$37.56	1,233.25	\$46,315	573	\$15.39	\$8,818	\$0	\$35	\$53	\$55,168	\$44,614	\$0	\$8,815		\$882	\$54,311	\$1,763	\$17,774	
2012	\$38.12	1,233.25	\$47,009	573	\$15.39	\$8,818	\$0	\$53	\$54	\$55,881	\$45,284	\$0	\$8,815		\$882	\$54,980	\$2,645	\$18,675	
2013	\$38.69	1,233.25	\$47,715	573	\$15.39	\$8,818	\$0	\$71	\$54	\$56,604	\$45,963	\$0	\$8,815		\$882	\$55,659	\$3,526	\$19,619	
2014	\$39.27	1,233.25	\$48,430	573	\$15.39	\$8,818	\$0	\$88	\$55	\$57,337	\$46,652	\$0	\$8,815		\$882	\$56,349	\$4,408	\$20,607	
2015	\$39.86	1,233.25	\$49,157	573	\$15.39	\$8,818	\$0	\$106	\$55	\$58,081	\$47,352	\$0	\$8,815		\$882	\$57,049	\$5,289	\$21,639	
2016	\$40.46	1,233.25	\$49,894	573	\$15.39	\$8,818	\$0	\$123	\$56	\$58,836	\$48,062	\$0	\$8,815		\$882	\$57,759	\$6,171	\$22,716	
2017	\$41.06	1,233.25	\$50,643	573	\$15.39	\$8,818	\$0	\$141	\$56	\$59,602	\$48,783	\$0	\$8,815		\$882	\$58,480	\$7,052	\$23,839	
2018	\$41.68	1,233.25	\$51,402	573	\$15.39	\$8,818	\$0	\$159	\$57	\$60,379	\$49,515	\$0	\$8,815		\$882	\$59,212	\$7,934	\$25,006	
2019	\$42.31	1,233.25	\$52,173	573	\$15.39	\$8,818	\$0	\$176	\$58	\$61,168	\$50,258	\$0	\$8,815		\$882	\$59,954	\$8,815	\$26,220	
2020	\$42.94	1,233.25	\$52,956	573	\$15.39	\$8,818	\$0	\$176	\$58	\$61,951	\$51,012	\$0	\$8,815		\$0	\$59,827	\$8,815	\$28,344	
2021	\$43.58	1,233.25	\$53,750	573	\$15.39	\$8,818	\$0	\$176	\$59	\$62,745	\$51,777	\$0	\$8,815		\$0	\$60,592	\$8,815	\$30,497	
2022	\$44.24	1,233.25	\$54,556	573	\$15.39	\$8,818	\$0	\$176	\$60	\$63,551	\$52,553	\$0	\$8,815		\$0	\$61,369	\$8,815	\$32,679	
2023	\$44.90	1,233.25	\$55,375	573	\$15.39	\$8,818	\$0	\$176	\$60	\$64,369	\$53,342	\$0	\$8,815		\$0	\$62,157	\$8,815	\$34,892	
2024	\$45.57	1,233.25	\$56,205	573	\$15.39	\$8,818	\$0	\$176	\$61	\$65,200	\$54,142	\$0	\$8,815		\$0	\$62,957	\$8,815	\$37,135	
2025	\$46.26	1,233.25	\$57,048	573	\$15.39	\$8,818	\$0	\$176	\$15	\$66,043	\$54,954	\$0	\$8,815		\$0	\$63,769	\$8,815	\$39,409	
2026	\$46.95	1,233.25	\$57,904	573	\$15.39	\$8,818	\$0	\$176	\$62	\$66,899	\$55,778	\$0	\$8,815		\$0	\$64,593	\$8,815	\$41,715	
2027	\$47.66	1,233.25	\$58,773	573	\$15.39	\$8,818	\$0	\$176	\$63	\$67,767	\$56,615	\$0	\$8,815		\$0	\$65,430	\$8,815	\$44,052	
2028	\$48.37	1,233.25	\$59,654	573	\$15.39	\$8,818	\$0	\$176	\$64	\$68,649	\$57,464	\$0	\$8,815		\$0	\$66,279	\$8,815	\$46,422	
2029	\$49.10	1,233.25	\$60,549	573	\$15.39	\$8,818	\$0	\$176	\$64	\$69,544	\$58,326	\$0	\$8,815		\$0	\$67,141	\$8,815	\$48,825	
2030	\$49.83	1,233.25	\$61,457	573	\$15.39	\$8,818	\$0	\$176	\$65	\$70,452	\$59,201	\$0	\$8,815		\$0	\$68,016	\$8,815	\$51,260	
2031	\$50.58	1,233.25	\$62,379	573	\$15.39	\$8,818	\$0	\$176	\$66	\$71,374	\$60,089	\$0	\$8,815		\$0	\$68,904	\$8,815	\$53,730	
2032	\$51.34	1,233.25	\$63,315	573	\$15.39	\$8,818	\$0	\$176	\$67	\$72,310	\$60,990	\$0	\$8,815		\$0	\$69,805	\$8,815	\$56,234	
2033	\$52.11	1,233.25	\$64,265	573	\$15.39	\$8,818	\$0	\$176	\$67	\$73,259	\$61,905	\$0	\$8,815		\$0	\$70,720	\$8,815	\$58,774	
2034	\$52.89	1,233.25	\$65,229	573	\$15.39	\$8,818	\$0	\$176	\$68	\$74,223	\$62,834	\$0	\$8,815		\$0	\$71,649	\$8,815	\$61,348	
2035	\$53.68	1,233.25	\$66,207	573	\$15.39	\$8,818	\$0	\$176	\$69	\$75,202	\$63,776	\$0	\$8,815		\$0	\$72,591	\$8,815	\$63,958	
2036	\$54.49	1,233.25	\$67,200	573	\$15.39	\$8,818	\$0	\$176	\$70	\$76,195	\$64,733	\$0	\$8,815		\$0	\$73,548	\$8,815	\$66,605	
2037	\$55.31	1,233.25	\$68,208	573	\$15.39	\$8,818	\$0	\$176	\$71	\$77,203	\$65,704	\$0	\$8,815		\$0	\$74,519	\$8,815	\$69,289	
2038	\$56.14	1,233.25	\$69,231	573	\$15.39	\$8,818	\$0	\$176	\$72	\$78,226	\$66,690	\$0	\$8,815		\$0	\$75,505	\$8,815	\$72,010	
2039	\$56.98	1,233.25	\$70,270	573	\$15.39	\$8,818	\$0	\$176	\$72	\$79,264	\$67,690	\$0	\$8,815		\$0	\$76,505	\$8,815	\$74,770	
2040	\$57.83	1,233.25	\$71,324	573	\$15.39	\$8,818	\$0	\$0	\$73	\$80,142	\$68,705	\$0	\$8,815		(\$8,815)	\$68,705	\$0	\$86,207	
Total			\$1,784,223			\$273,372.57	\$0	\$4,496		\$2,062,091	\$1,718,718	\$0	\$273,269	\$0	\$0	\$1,991,987			

Notes: (1) Includes 10% of annual loan payment for 10 years to build reserve fund.
(2) Total accumulated is one annual loan payment.